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VARIOUS FRAGMENTS

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BY

HERBERT SPENCER



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P R E F A C E.

Several of the following fragments contain ideas and suggestions which ought not, I think, to remain buried, and practically lost, in their original places of publication. Preservation may, I think, prove to be of some importance. As for the rest, I do not know that they are all intrinsically of such value as to be worthy of a permanent form. But it has seemed that along with republication of the fragments of chief significance, there might fitly go a republication of those of less significance, which would not have been worth republishing by themselves.

H. S.

July, 1897.

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THE BOOKSELLING-QUESTION.

In April 1852 was published in the *Westminster Review*, an essay on “The Commerce of Literature,” written by Mr. (afterwards Dr.) Chapman, then a publisher and the owner of the review. The picture which it drew of the trade-regulations and their results, initiated an agitation among authors, in which I took part, and in furtherance of it published the following letter in *The Times* for April 5, 1852. This letter, signed “An Author,” I reproduce partly because it shows the condition of the book-trade in the middle of the century, and partly because it bears significantly on a current question—namely whether the system then in force shall be re-established.

Somewhat more than a year since I published a work of which the advertised price is 12s. I have now before me an account up to Christmas last, wherein I find myself credited with the copies sold at the rate of 8s. 6d. each. The trade custom of giving 25 for the price of 24 reduces this to somewhat less than 8s. 2d. Further, my publisher deducts 10 per cent. commission for all sales he makes in my behalf; so that ultimately the net sum per copy payable to me becomes 7s. 4d. Out of this

7s. 4d. per copy I have to pay for the composition, printing, paper, and binding; for the advertising, which threatens to reach 50*l.*; and for the 30 odd copies sent to the national libraries, newspapers, and reviews. The result is that, though of its kind the book has been a very successful one, my account up to Christmas last shows a balance of 80*l.* against me. Possibly in 18 months hence the work will have paid its expenses, and I am even not without hope that it will leave me some 10*l.* in pocket as a reward for my two years' toil. Should it do so, however, I shall be unusually fortunate; for my publisher tells me that the great majority of works having, like mine, a philosophical character, entail loss.

Now, with all their skill in mystification, the Booksellers' Association will find it difficult to show that out of a selling price of 12*s.* the proportion set aside to pay for printing, paper, binding, advertising, gratuitous copies, and author, should be 7s. 4d., while 4*s.* 8*d.* may reasonably be charged for conveyance to the reader. In these days of cheap carriage 60 per cent. for cost of production, and 40 per cent. for portage, is a somewhat anomalous division.

Mr. Murray says it is in great measure an author's question. He is right, and authors will prove much less intelligent than I take them to be if they do not see how immensely their own interests, as well as those of the public, would be served by a diminution of these exorbitant trade profits. Let any one refer to *Porter's Progress of the Nation*, and there note the many cases in which a small reduction of price has been followed by a great increase of consumption, and he cannot avoid the inference that a 20 per cent. decrease in the vendor's charge for a book would cause a much more than pro-

portionate increase in its sale; and as this decrease would be in the cost of agency, and not in the author's price, the extra sale would be so much clear profit to him. Books that now entail loss would pay their expenses, and books that now only pay their expenses would bring something like a reasonable remuneration.

Should the publishers and booksellers persist in their restrictive policy, which is injurious not only to authors and the public, but, I believe, in the long run even to themselves, I think that as a matter of business authors will be justified in declining to publish with any who belong to the combination.

The movement initiated, as above said, by Mr. Chapman's article, resulted in an agreement to arbitrate between the authors and the traders. The arbitrators appointed were Lord Campbell, Mr. Grote, and Dean Milman. They gave their decision in favour of the authors, and the trade-regulations which enforced the system of "net prices" were at once abolished.

AN ELEMENT IN METHOD.

The fragment which here follows was originally the introductory chapter to Part III of *The Principles of Psychology* (first edition 1855). When preparing a second and enlarged edition of the work in 1868—70, I omitted it as not being relevant to Psychology in particular but as being relevant rather to science in general;

and I then entertained the thought of making it part of an essay "On Method" to be prefixed to *First Principles*. Pre-occupation prevented me from carrying out that intention and ill-health now obliges me to abandon it. But the thought which this fragment embodies has, I think, a degree of importance which makes preservation desirable; and I therefore decide to include it in this volume.

It is a dominant characteristic of Intelligence, viewed in its successive stages of evolution, that its processes, which, as originally performed, were not accompanied with a consciousness of the manner in which they were performed, or of their adaptation to the ends achieved, become eventually both conscious and systematic. Not simply is this seen on comparing the actions popularly distinguished as instinctive and rational; but it is seen on comparing the successive phases of rationality itself. Thus, children reason, but do not know it. Youths know empirically what reason is, and when they are reasoning. Cultivated adults reason intentionally, with a view to certain results. The more advanced of such presently inquire after what manner they reason. And finally, a few reach a state in which they consciously conform their reasonings to those logical principles which analysis discloses. To exhibit this law of mental progress clearly, and to show the extent of its application, some illustrations must be cited.

Classification supplies us with one. All intelligent action presupposes a grouping together of things possessing like properties. To know what is eatable and what not; which creatures to pursue and which to fly;

what materials are fit for these purposes and what for those; alike imply the arrangement of objects into classes of such nature that, from certain sensible characteristics of each, certain other characteristics are foreseen. It is manifest that throughout all life, brute and human, more or less of this discrimination is exercised; that it is more exercised by higher creatures than by lower; and that successful action is in part dependent on the extent to which it is pushed. Now it needs but to open a work on Chemistry, Mineralogy, Botany, or Zoology, to see how this classification which the child, the savage, and the peasant, carry on spontaneously, and without thinking what they are doing, is carried on by men of science systematically, knowingly, and with deliberate purpose. It needs but to watch their respective proceedings, to see that the degrees of likeness and unlikeness, which unconsciously guide the ignorant in forming classes and sub-classes, are consciously used by the cultured to the same end. And it needs but to contrast the less advanced men of science with the more advanced, to see that this process of making groups, which the first pursue with but little perception of its ultimate use, is pursued by the last with clear ideas of its value as a means of achieving higher objects.

So too is it with nomenclatures. Few will hesitate to admit that in the first stages of language, things were named incidentally—not from a recognition of the value of names as facilitating communication; but under the pressure of particular ideas which it was desired to convey. The poverty of aboriginal tongues, which contain words only for the commonest and most conspicuous objects, serves of itself to show, that systems of verbal signs were, in the beginning, unconsciously extended as

far only as necessity impelled. Now, however, nomenclatures are made intentionally. A new star, a new island, a new mineral, a new plant or animal, are severally named by their discoverers as soon as found; and are so named with more or less comprehension of the purpose which names subserve. Moreover it may be remarked that whereas, in the primitive unconscious process of naming, the symbols employed were, as far as might be, descriptive of the things signified; so, in our artificial systems of names—and especially in our chemical one—a descriptive character has been designedly given. Add to which, that whereas there spontaneously grew up in natural nomenclatures, certain habitual ways of combining and inflecting names to indicate composite and modified objects; so, in the nomenclatures of science, systematic modes of forming compound names have been consciously adopted.

Again, a similar progress may be traced in the making of inductions. As is now commonly acknowledged, all general truths are either immediately or mediately inductive—are either themselves derived from aggregations of observed facts, or are deduced from truths that are so derived. The grouping together of the like coexistences and sequences presented by experience, and the formation of a belief that future coexistences and sequences will resemble past ones, is the common type of all initial inferences, whether they be those of the infant or the philosopher. Up to the time of the Greeks, mankind had pursued this process of forming conclusions, unknowingly, as the mass of them pursue it still. Aristotle recognized the fact that certain classes of conclusions were thus formed; and to some extent taught the

necessity of so forming them. But it was not until Bacon lived, that the generalization of experiences was erected into a method. Now, however, that all educated men are in a sense Bacon's disciples, we may daily see followed out systematically, and with design, in the investigations of science, those same mental operations which mankind at large have all along unwittingly gone through, in gaining their commonest knowledge of surrounding things. And further, in the valuable "System of Logic" of John Mill, we have now exhibited to us in an organized form, those more complex intellectual procedures which acute thinkers have ever employed, to some extent, in verifying the aboriginal inductive process—procedures which the most advanced inquirers are now beginning to employ with premeditation, and with a recognition of their nature and their purpose.

Another illustration may be drawn from the first part of this work. On reconsidering the chapter treating of the Universal Postulate, it will be seen that the canon of belief there enunciated as the one to be used in testing every premiss, every step in an argument, every conclusion, is one which men have from the beginning used to these ends; that beliefs which are proved by the inconceivableness of their negations to invariably exist, men have, of necessity, always held to be true, though they have not knowingly done this; and that the step remaining to be taken, was simply to apply this test consciously and systematically. It will also be seen that the like may be said of the second canon of belief contained in that chapter; viz. that the certainty of any conclusion is great, in proportion as the assumptions of the Universal Postulate made in reaching it are few. For as was pointed out people in general habitually show but little

confidence in results reached by elaborate calculations, or by long chains of reasoning; whilst they habitually show the greatest confidence in results reached by direct perception; and these contrasted classes of results are those which respectively presuppose very many and very few assumptions of the Universal Postulate. In this case therefore, as in the other, the rational criterion is simply the popular criterion analyzed, systematized, and applied with premeditation.

In further exemplification of this law I might enlarge upon the fact, that having found habit to generate facility, we intentionally habituate ourselves to those acts in which facility is desired; upon the fact, that having seen how the mind masters its problemis by proceeding from the simple to the complex, we now consciously pursue our scientific inquiries in the same order; upon the fact, that having, in our social operations, spontaneously fallen into division of labour, we now, in any new undertaking, introduce division of labour intentionally. But without multiplying illustrations, it will by this time be sufficiently clear, that, as above said, not only between the so-called instinctive processes and rational ones, is there a difference in respect of the consciousness with which they are performed, but there are analogous differences between the successive gradations of rationality itself.

Are we not here then, led to a general doctrine of methods? In each of the cases cited, we see an arranged course of action deliberately pursued with a view to special ends—a method; and on inquiring how one of these methods differs from any conscious intelligent procedure not dignified by the title, we find that it differs only in length and complication. Neglecting this distinction as

a merely conventional one—ceasing to regard methods objectively, as written down in books, and regarding them subjectively, as elaborate modes of operation by which the mind reaches certain results—we shall see, that they may properly be considered as the highest self-conscious manifestations of the rational faculty. And if, viewed analytically, all methods are simply complex intellectual processes, standing towards conscious reasoning much as conscious reasoning stands towards unconscious reasoning, and as unconscious reasoning stands towards processes lower in the scale—if further, in the several instances above given, methods arose by the systematization and deliberate carrying out of mental operations which were before irregularly and unwittingly pursued—may we not fairly infer that all methods arise after this manner? That they become methods, when the processes they embody have been so frequently repeated as to assume an organized form? And that it is the frequent repetition, which serves alike to give them definiteness, and to attract consciousness to them as processes by which certain ends have been achieved. Is it not indeed obvious, *à priori*, that no method can be practicable to the intellect save one which harmonizes with its pre-established modes of action? Is it not obvious that the conception of a method by its promulgator implies in the experiences of his own mind, cases in which he has successfully followed such method? Is it not obvious that the advance he makes, consists in observing the processes through which his mind passed on those occasions, and generalizing and arranging them into a system? And is it not then obvious that, both in respect of origin and applicability, no method is possible but such as consists of an orderly and habitual use of the procedures which

the intellect spontaneously pursues, but pursues fitfully, incompletely, and unconsciously? The answers can scarcely be doubtful.

By thus carrying consciousness a stage higher, and recognizing the method by which methods are evolved, we may perhaps see our way to further devices in aid of scientific inquiry. As in the case of deductive logic, and classification, and nomenclature, and induction, and the rest, it happened that by becoming conscious of the mode in which the mind wrought in these directions, men were enabled to organize its workings, and consequently to reach results previously unattainable; so, it is possible that by becoming conscious of the method by which methods are formed, we may be assisted in our search after further methods. If in the instances given, the method of forming methods was that of observing the operations by which from time to time the mind spontaneously achieved its ends, and arranging these into a general scheme of action to be constantly followed in analogous cases; then, in whatever directions our modes of inquiry are at present unmethodized, our policy must be to trace the steps by which success is occasionally achieved in these directions; in the hope that by so doing, we may be enabled to frame systems of procedure which shall render future successes more or less sure. That there is scope for this cannot be doubted. On remembering how much, even of the best thinking, is done in an irregular way; how little of the whole chain of thought by which a discovery is made, is included in the bare logical processes; and how unorganized is the part not so included; it will be manifest that there are intellectual operations still remaining to be methodized. And here may fitly be introduced an example, to which, in

fact, the foregoing considerations are in a manner introductory.

Every generalization is at first an hypothesis. In seeking out the law of any class of phenomena, it is needful to make assumptions respecting it, and then to gather evidence to prove the truth or untruth of the assumptions. The most rigorous adherent of the inductive method, cannot dispense with such assumptions; seeing that without them, he can neither know what facts to look for, nor how to interrogate such facts as he may have. Hypotheses, then, being the indispensable stepping-stones to generalizations—every generalization having to pass through the hypothetic stage—it becomes a question whether there exists any mode of guiding ourselves towards true hypotheses. At present, hypotheses are chosen unsystematically—are suggested by cursory inspections of the phenomena; and the seizing of right ones, seems, in the great majority of cases, a matter of accident. May we not infer however, from the peculiar skill which some men have displayed in the selection of true hypotheses, that there is a special kind of intellectual action by which they are distinguishable. To call the faculty shown by such men, genius, or intuition, is merely to elude the question. If mental phenomena conform to fixed laws, then, an unusual skill in choosing true hypotheses, means nothing else than an unusual tendency to pursue that mental process by which true hypotheses are reached; and this implies that such a process exists.

To identify this process is the problem: to find how, when seeking the law of any group of phenomena, we may make a probable assumption respecting them—how we may guide ourselves to a point of view from which the facts to be generalized can be seen in their funda-

mental relations. Evidently, as the thing wanted is always an unknown thing, the only possible guidance must be that arising from a foreknowledge of whereabouts it is to be found, or of its general aspect, or of both. If all true generalizations (excluding the merely empirical ones) should possess a peculiarity in common; and this peculiarity should be one not difficult of recognition; the desired guidance may be had. That such a peculiarity exists, will by this time have been inferred; and it now remains to inquire what it is.

Most are familiar with the observation, that viewed in one of its chief aspects, scientific progress is constantly towards larger and larger generalizations—towards generalizations, that is, which include the generalizations previously established. Further, the remark has been made, that every true generalization commonly affords an explanation of some other series of facts than the series out of the investigation of which it originated. In both of which propositions we have partial statements of the truth, that each onward step in science is achieved when a group of phenomena to be generalized is brought under the same generalization with some connate group previously considered separate. Let us look at a few cases.

In the Calculus it was thus, when the relationships of extension, linear, superficial, and solid, were found to conform to the same law with those of numbers that are multiplied into each other; and again, when numbers themselves, whether representing spaces, forces, times, objects, or what not, were found to possess certain general properties, capable of being expressed algebraically, which remain the same whatever the magnitudes of the numbers. In Mechanics it was thus, when a formula

was discovered which brought the equilibrium of the scales, under the same generalization with the equilibrium of the lever with unequal arms: and again, when the discovery that fluids press equally in all directions, afforded explanations, alike of their uniform tendency towards horizontality, and of their power to support floating bodies. Thus too was it in Astronomy, when the apparently erratic movements of the planets, and the comparatively regular movement of the moon, were explained as both due to similar revolutions; and when the celestial motions, and the falling of rain-drops, were explained as different manifestations of the same force. It was thus in Optics, when the composite nature of light was discovered to be the passive cause of the prismatic spectrum, of the rainbow, and of the colours of objects; in Thermotics, when the expansion of mercury, the rising of smoke, and the boiling of water, were recognized as different manifestations of the same law of expansion by heat; in Acoustics, when the doctrine of undulations was found to apply equally to the phenomena of harmonies, of discords, of pulses, of sympathetic vibrations. Similarly, it was thus in Chemistry, when the burning of coal, the rusting of iron, and the wasting away of starved animals, were generalized as instances of oxidation. It was thus, too, when the electro-positive and electro-negative relations of the elements, were brought in elucidation of their chemical affinities. And once more it was thus, when, by the investigations of Oersted and Ampère, the phenomena of Electricity and Magnetism were reduced to the same category; and the behaviour of the magnetic needle was assimilated to that of a needle subjected to the influence of artificial electric currents.

Now this circumstance, that a true generalization usually brings within one formula groups of phenomena which at first sight seem unallied, is itself a more or less reliable index of the truth of a generalization. For manifestly, to have found for any series of facts, a law which equally applies to some apparently distinct series, implies that we have laid hold of a truth more general than the truths presented by either series regarded separately—more general than the truths which give the special character to either series. If, in the instances above cited, and in hosts of others, we find that the most general fact displayed by any class of phenomena, is also the most general fact displayed by another class, or by several other classes; then, we may conversely infer, on finding a general fact to be true of several cases in each of two separate classes, that there is considerable probability of its being true of all the cases in each class. Or, to exhibit the proposition in another form:—A peculiarity observed to be common to cases that are widely distinct, is more likely to be a fundamental peculiarity, than one which is observed to be common to cases that are nearly related.

Hence, then, is deducible a method of guiding ourselves towards true hypotheses. For if a characteristic seen equally in instances usually placed in different categories, is more likely to be a general characteristic than one seen equally in instances belonging to the same category; then, it is obviously our policy, when seeking the most general characteristic of any category, not to compare the instances contained in it with each other, but to compare them with instances contained in some allied category. We must seek out all the categories with which alliance is probable; compare some of the

phenomena included in each with some of the phenomena under investigation; ascertain by each comparison what there is common to both kinds; and then, if there be any characteristic common to both, inquire whether it is common to all the phenomena we are aiming to generalize: in doing which we may with advantage still act out the same principle, by comparing first the cases that are most strongly contrasted. The adoption of this course secures two advantages. Not only must any peculiarity which may be hit upon, as common to phenomena of separate classes, have a greater probability of being a generic peculiarity, than any one of the many peculiarities possessed in common by phenomena of the same classes; but further, we shall be more likely to observe *all* that there is in common between diverse phenomena placed side by side, than we shall to observe *all* that there is in common between phenomena so much alike as to be classed together. Fewer hypotheses are possible; all that are possible are likely to be thought of; and of those thought of, each has a much higher chance of being true.

PROFESSOR CAIRNES'S CRITICISMS.

Prof. Cairnes having, in *The Fortnightly Review* for January and February 1875, criticized my views concerning social evolution and its relations to individual volitions and activities, I published in the February number the following reply, which, by the Editor's courtesy, I was allowed to append to Prof. Cairnes's con-

cluding article. The prevalence of the error into which Prof. Cairnes fell, makes desirable the reproduction of this explanation excluding it.

Were it possible to expound clearly, in one small volume, a doctrine which three large volumes are to be occupied in expounding, it would be needless to write the three large volumes. Further, in a work on the *study* of a science devoted to the discussion of difficulties and preparations, and referring to its facts and inferences mainly in elucidation of the study, it is hardly to be expected that the *principles* of the science can be set forth with the exactness and the qualifications proper to a work on the science itself; indications and outline statements only are to be looked for.

I say this by way of implying that the objections raised by Prof. Cairnes to views incidentally sketched in the *Study of Sociology*, will be adequately met by the full exposition which the *Principles of Sociology* is to contain. This exposition will, I believe, satisfy Prof. Cairnes that he does not quite rightly apprehend the general doctrine of evolution, and the doctrine of social evolution forming part of it. For example, so far is it from being true, as he supposes, that the existence of stationary societies is at variance with the doctrine, it is, contrariwise, a part of the doctrine that a stationary state, earlier or later reached, is one towards which all evolutional changes, social or other, inevitably lead. (See *First Principles*, chap. XXII, "Equilibration.") And again, so far is it from being true that the slow social decays which in some cases take place, and the dissolutions which take place in others, are incongruous

with the doctrine, it is, contrariwise, a part of it that decays and dissolutions must come in all cases. (See *First Principles*, chap. XXIII, "Dissolution.")

Leaving the rest of Prof. Cairnes's objections to be answered by implication in the volumes which I hope in time to complete, I will here say no more than may suffice to remove the impression that I advocate passivity in public affairs. From the principles laid down, he considers me bound to accept the absurd corollary that political organization is superfluous. To recall his illustration of insurance against fire, he argues that since loss by fire is not diminished by insurance companies, but only re-distributed, I must, in pursuance of my argument, hold that insurance companies are useless! The passage which Prof. Cairnes quotes is directed against "the current illusion that social evils admit of *radical cures*," in immediate ways; and insists "that *the question in any case* is whether re-distribution, even if practicable, is desirable:" the obvious implication being that some re-distributions are desirable and some not.

I am chiefly concerned, however, to repudiate the conclusion that "the private action of citizens" is needless or unimportant, because the course of social evolution is determined by the natures of citizens, as working under the conditions in which they are placed. To assert that each social change is thus determined, is to assert that all the egoistic and altruistic activities of citizens are factors of the change; and is tacitly to assert that in the absence of any of these—say political aspirations, or the promptings of philanthropy—the change will not be the same. So far from implying that the efforts of each man to achieve that which he thinks best, are unimportant, the doctrine implies that such efforts, sever-

ally resulting from the natures of the individuals, are indispensable forces. The correlative duty is thus emphasized on page 105 of *First Principles*:—

“ It is not for nothing that he has in him these sympathies with some principles and repugnance to others. He, with all his capacities, and aspirations, and beliefs, is not an accident, but a product of the time. He must remember that while he is a descendant of the past, he is a parent of the future; and that his thoughts are as children born to him, which he may not carelessly let die. He, like every other man, may properly consider himself as one of the myriad agencies through whom works the Unknown Cause; and when the Unknown Cause produces in him a certain belief, he is thereby authorized to profess and act out that belief. For, to render in their highest sense the words of the poet,—

“ . . . Nature is made better by no mean,
But nature makes that mean: over that art
Which you say adds to nature, is an art
That nature makes.’ ”

That there is no retreating from this view in the work Prof. Cairnes criticizes, is sufficiently shown by its closing paragraph:—

“ Thus, admitting that for the fanatic some wild anticipation is needful as a stimulus, and recognizing the usefulness of his delusion as adapted to his particular nature and his particular function, the man of higher type must be content with greatly-moderated expectations, while he perseveres with undiminished efforts. He has to see how comparatively little can be done, and yet to find it worth while to do that little: so uniting philanthropic energy with philosophic calm.”

I do not see how Prof. Cairnes reconciles with such passages, his statement that “ according to Mr. Spencer,

the future of the human race may be safely trusted to the action of motives of a private and personal kind—to motives such as operate in the production and distribution of wealth, or in the development of language." This statement is to the effect that I ignore the "action of motives" of a higher kind; whereas these are not only necessarily included by me in the totality of motives, but repeatedly insisted upon as all-essential factors. I am the more surprised at this misapprehension, because, in the essay on "Specialized Administration," to which Prof. Cairnes refers (see *Fortnightly Review*, for December, 1871), I have dwelt at considerable length on the altruistic sentiments and the resulting social activities, as not having been duly taken into account by Prof. Huxley.

As Prof. Cairnes indicates at the close of his first paper, the difficulty lies in recognizing human actions as, under one aspect, voluntary, and under another pre-determined. I have said elsewhere all I have to say on this point. Here I wish only to point out that the conclusion he draws from my premises is utterly different from the conclusion I draw. Entering this caveat, I must leave all further elucidations to come in due course.

VIEWS CONCERNING COPYRIGHT.

In 1877 a Royal Commission sat to take evidence on the general question of Copyright, and I was invited to give evidence. The following result is reproduced from the official "Minutes of Evidence" given on March 6

and March 20, 1877. On a subsequent occasion (May, 1881), at a meeting of the National Association for the Promotion of Social Science, I expressed some further views, which were published in vol. XIV of the society's *Proceedings*.

(Chairman.) I need hardly ask, you are a writer of philosophical and scientific books?—I am.

Would you give the Commission your experience of the terms on which you published your first book?—I published my first work, "Social Statics," at the end of 1850. Being a philosophical book it was not possible to obtain a publisher who would undertake any responsibility, and I published it at my own cost. A publisher looks askance at philosophy, and especially the philosophy of a new man; hence I published on commission.

Would you like to state what the result was?—The edition was 750; it took 14 years to sell.

Then with respect to your next work?—In 1855 I published the "Principles of Psychology"; I again tried in vain to get a publisher, and published again at my own cost. There were 750 copies, and the sale was very slow. I gave away a considerable number, and the remainder, I suppose about 650, sold in $12\frac{1}{2}$ years.

Have you had any other similar cases?—Yes; I afterwards, in 1857, published a series of Essays, and, warned by past results, I printed only 500. That took $10\frac{1}{2}$ years to sell. After that a second series of Essays, and a little work on Education, which both had kindred results, but were not quite so long in selling. I should add that all these sales would have taken still longer but for the effect produced upon them by books published

at a later period, which helped the earlier ones to sell.

Have all these subsequent works to which you now refer been published in the same way?—No. Towards 1860 I began to be anxious to publish a “System of Philosophy,” which I had been elaborating for a good many years. I found myself in the position of losing by all my books; and after considering various plans, I decided upon the plan of issuing to subscribers in quarterly parts, and to the public in volumes when completed. Before the initial volume, “First Principles,” was finished, I found myself still losing. During issue of the second volume, the “Principles of Biology,” I was still losing. In the middle of the third volume I was still losing so much that I found I was frittering away all I possessed. I went back upon my accounts, and found that in the course of 15 years I had lost nearly 1,200*l.*—adding interest, more than 1,200*l.*; and as I was evidently going on ruining myself, I issued to the subscribers a notice of cessation.

Was that loss the difference between the money that you had actually spent in publishing the books and the money you had received in return?—Not exactly. The difference was between my total expenditure in publishing the books and living in the most economical way possible, and the total returns. That is to say, cutting down my expenses to the smallest amount, I lost 1,200*l.* by the inadequate returns, and trenched to that extent upon capital.

But you continued afterwards, did you not, to publish?—I continued afterwards, simply, I may say, by accident. On two previous occasions, in the course of these 15 years, I had been enabled to persevere, spite of

losses, by bequests. On this third occasion, after the issue of the notice, property which I inherit came to me in time to prevent the cessation.

May I ask how long it took before you began to be repaid for your losses?—My losses did not continue very long after that: the tide turned and my books began to pay. I have calculated what length of time it has taken to repay my losses, and find they were repaid in 1874; that is to say, in 24 years after I began I retrieved my position.

Then the Commission understand that your books are now remunerative?—They are now remunerative, and for this reason:—As I have explained, I had to publish on commission. Commission is a system which, throwing all the cost upon the author, is very disastrous for him if his books do not pay, and, as you see in this case, has been very disastrous to me; but when they do pay it is extremely advantageous, inasmuch as in that case the publisher who does the business takes only 10 per cent., and the whole of the difference between cost and proceeds, minus that 10 per cent., comes to the author. I have calculated what are my actual returns, on two suppositions. I have ascertained the percentage I get upon 1,000 copies, supposing that I set up the type solely for that 1,000 copies—supposing, that is, that the cost of composition comes into the cost. In that case I reap $30\frac{3}{4}$ per cent. But I reap much more. I was sanguine enough, when I began this series of books, to stereotype. The result is that now I simply have to print additional thousands as they are demanded. If I suppose the cost of composition and stereotyping to have been paid for the first edition, and only estimate the cost of paper and printing in the successive editions, then I am reaping

41 $\frac{3}{4}$ per cent. The actual percentage, of course, is one which lies between those two; but year by year, with each additional thousand, I approach more nearly to the limit of 41 $\frac{3}{4}$ per cent. I should point out that the result of this is that I receive, as may be supposed, a considerable return upon the moderate numbers sold.

And that being so, can you tell the Commission what in your opinion would have happened had there been in existence a system under which three years, say, after date of publication anyone could have reprinted your books, paying you a royalty of 10 per cent.?—The result would have been that my losses would not have been repaid now. After 26 years' work I should still have been out of pocket; and should be out of pocket for many years to come.

(*Mr. Trollope.*) Under such a system do you think that you would ever have recovered that money?—I am taking it on the most favourable supposition, merely supposing that all other things but the percentage had remained the same.

(*Chairman.*) Assuming the system of royalty to be in existence, what would be the result on your present returns, supposing losses to have been repaid?—Between two thirds and three fourths of those returns would be cut off. They would be reduced to little more than a fourth of their present amount.

(*Sir H. Holland.*) How do you arrive at that result?—By comparing the supposed percentage with the percentage I actually receive.

Assuming a royalty of 10 per cent. upon the retail price?—Yes.

(*Chairman.*) Would it not be probable that the reduction in price of your books would so increase the sales

that you would reap a larger return than you have supposed in the estimate that you have now given?—I think not, or very little. First of all for the reason that the amount of reduction would not be anything like so great as at first sight appears. If a publisher issued rival editions of my books without my assent, on paying a royalty, he would only do so to make a profit beyond that which mere commission would bring. My present publisher is content with 10 per cent. commission. A publisher who competed as a speculation would want to make his profit beyond the 10 per cent. commission: as I ascertain, probably, at least a further 10 per cent. Then there would be my own 10 per cent. royalty. So that I find the reduction in price under such a royalty system would only be about 15 per cent. That is to say, the reduction would be from 20s. to 17s. Now I am of opinion that a reduction of the price of one of my books by that amount would have but a small effect upon the sales, the market being so limited. Let me use an illustration. Take such a commodity as cod-liver oil, which is a very necessary thing for a certain limited class. Suppose it is contended that, out of regard for those to whom it is so necessary, retailers should be compelled to take a smaller profit, and you reduce the price by 15 per cent. The consumption would be very little influenced, because there would be none except those who had it prescribed for them who would be willing to take it, and they must have it. Now take one of my books, say the "Principles of Psychology." Instead of calling it "*caviare to the general*," let us call it cod-liver oil to the general: I think it probable that if you were to ask 99 people out of 100 whether they would daily take a spoonful of cod-liver oil or read a chapter of that book, they

would prefer the cod-liver oil. And if so it is quite clear, I think, that no lowering of the price by 3s. out of 20s. would in any considerable degree increase the number of persons who bought the "Principles of Psychology." The class is so limited and so special that there would be no increase of profit of a considerable kind in consequence of an increased number sold.

(*Mr. Trollope.*) But are there not many people who would have benefited by cod-liver oil who cannot get it at present because of the price?—I think in all those cases in which they would be benefited they get it by hook or by crook when it is prescribed for them.

And in the same way with your books, you think?—Yes. For instance, university men have to read them, and they would buy them in any case.

(*Chairman.*) What would have happened to you originally had there been a law giving a copyright only of short duration, under such an arrangement of percentage as that which you have just named?—I think it is tolerably obvious, from what I have already said, that I should not have been wholly deterred. I should have gone on losing for many years; but I think it is also clear that I should have stopped short much sooner than I did. Every author is naturally sanguine about his books: he has hopes which nobody else entertains. The result is that he will persevere, in the hope of at some time or other reaping some return, when to other persons there seems to be no probability of the kind. But supposing it becomes manifest to him that the copyright law is such that when his books succeed, if they ever do succeed, he will not get large profits, then the discouragement will be much greater, and he will stop much sooner. If I, for instance, instead of seeing that

under the system of commission I should eventually, if I succeeded, repay myself and get a good return, had seen that eventually, if I succeeded, I should receive but small gains, I should have given it up.

Are there other publications which you have undertaken besides those to which you have already referred?—Yes. About 10 years ago I commenced preparing works now published under the name of “Descriptive Sociology,” in large folio parts, and containing tables and classified extracts representing the civilisations of various societies. I employed gentlemen to make these compilations.

Do you wish to state what has been the result of that undertaking so far?—Yes. I made up my accounts last Christmas. I had then in the course of those 10 years expended 2,958*l.* odd upon eight parts (five published and three in hand), and my net return from sales of the five parts published in England and America was 608*l.* 10*s.*

May I ask whether you ever expect to get back the money you have expended?—I may possibly get back the printing expenses on the earliest part, and most popular part, that dealing with the English civilization, in 1880, at the present rate of sale. The printing expenses of the other parts I do not expect to get back for many years longer. The cost of compilation I expect to get back if I live to be over 100.

(*Mr. Daldy.*) You spoke of the circulation in England and America. May I ask, Do you send stereotype plates to America?—I did at first send stereotype plates to America, but the thing having proved to be so great a loss I now send a portion of the printed edition.

(*Chairman.*) May I ask why do you expect repay-

ment of the cost of compilation to be so slow as you stated in your answer to my last question?—The reason is that I made a promise to the compilers entailing that. The compilers are university men, to whom I could afford to give only such salaries as sufficed for their necessary expenses. To make the thing better for them, and to be some incentive, I told them that when the printing expenses on any one part were repaid, I would commence to divide with the compiler of it the returns of subsequent sales: the result being, that the cost of compilation comes back to me only at half the previous rate. I name this because it shows that in the absence of a long copyright, I could have given no such contingent advantage to the compilers. I wish to point out another way in which a short copyright would have impeded me. As a further incentive to these compilers to do their work well, as also make the prospect better for them, I gave them to understand that the copyrights and the stereotype plates would be theirs after my death. Of course with a short copyright I could not have done that.

Then in your opinion it is only by a long duration of copyright that you can be enabled to recover any considerable part of the money that you have sunk in these publications?—Certainly. If it were possible for anyone to reprint, such small return as goes towards diminishing this immense loss would be in part intercepted.

But if this work, which you call “Descriptive Sociology,” is so unremunerative, how do you imagine you would be in danger of having it reprinted under the suggested system of royalty?—It appears at first sight not a rational expectation, but it is perfectly possible. Each number of the work consists of a set of tables and a set of classified extracts. It was suggested by a re-

viewer of the first part, the English part, that the tables should be separately printed, mounted on boards, and hung up in schools. The suggestion was a good one, and I have even had thoughts of doing it myself. A publisher might take up that suggestion, and might issue those independently of me, and diminish what small sale I now have. Again, the work is very cumbrous and awkward; that can hardly be helped; but a publisher might see that the extracts arranged in ordinary volume form would be valuable by themselves apart from the tables, and might get a good sale independently; and again my small returns would be cut into.

(*Sir H. Holland.*) That objection of yours would be partly met by the suggestion of Mr. Macfie, who brought this question of royalty before us, because his suggestion is, that no reprint is to differ from the original edition without the author's consent, either in the way of abbreviation, enlargement, or alteration of the text. Therefore, under that regulation, if that is carried out, a publisher could not print half of this book without your consent?—That would so far, if it can be practically worked out, meet my objection.

(*Mr. Trollope.*) But you have stated that you thought yourself of using this form of abridgment to which allusion is made?—I have.

And if this form of abridgment when made by you could be republished again by anybody else, then your profit would be interfered with?—No doubt of it.

(*Chairman.*) Supposing the suggested system of short copyright and royalty had been in force, would you have undertaken these works to which you have referred?—Certainly not. The enterprise was an unpromising one, pecuniarily considered, and it would have been

almost an insane one, I think, had there not been the possibility of eventually getting back some returns from sales that were necessarily very slow. Moreover, the hopes under which the compilers have worked I could never have given to them.

Then are we to gather from your evidence that the system of short copyright and royalty would be injurious to the books of the graver class which do not appeal to the popular tastes?—I think so; it would be especially injurious to that particular class which of all others needs encouragement.

(*Sir H. Holland.*) As requiring most thought and brain work on the part of the author?—Yes, and being least remunerative.

(*Chairman.*) I understand you to say that in all these cases you have not parted with the copyright yourself?—No, I have not.

Now assuming that the authors of these graver books sold their copyrights, do you think this royalty system would still act prejudicially upon them?—I think very decidedly. I have understood that it is contended that authors who sell their copyrights would not be affected by this arrangement. One of the answers I heard given here to-day sufficed to show that that is not true; inasmuch as a publisher who had to meet these risks would not give as much for copyright as he would otherwise give. His argument would be unanswerable. He would say, “Your book is a success, or not a success; if not a success, I lose what I give you for copyright; if a success, I shall have it reprinted upon me, and again I shall lose what I give you for copyright. I must, therefore, reduce the amount which I give for the copyright.” Moreover, I believe that the reduction in the value of

copyright would be much greater than the facts justified. In the first place, the publisher himself would look to the possibility of reprinting with a fear beyond that which actual experience warranted. Frequently a suggested small danger acts upon the mind in a degree out of all proportion to its amount. Take such a case as the present small-pox epidemic, in which you find that one person in 30,000 dies in a week; in which, therefore, the risk of death is extremely small. Look at this actual risk of death and compare it with the alarms that you find prevailing amongst people. It is clear that the fear of an imagined consequence of that kind, is often much in excess of the actual danger. Similarly, I conceive that the publisher himself would unconsciously over-estimate the danger of reprints. But beyond that he would exaggerate his over-estimate as an excuse for beating down copyright. He would say to the author, " You see this danger; I cannot face so great a risk without guarding myself; and you must submit to a large reduction."

The evidence as continued on March 20 was as follows:

(Chairman.) I will ask you if you have any explanations you wish to offer on any point connected with the evidence which you gave on the last occasion?—Yes; I have to rectify some misapprehensions. From the re-statement made by Mr. Farrer, it would appear that in discussing the question of profits from re-publication of one of my works, I said I had " found that no other publisher would undertake the work without an additional profit of 10 per cent.," which implies that I had endeavoured to obtain another publisher. My meaning was that I ascertained that any other publisher who thought

of issuing a rival edition, would expect to make a profit of 10 per cent. beyond the 10 per cent. commission for doing the business. Further, I have to remark that the case I took as illustrating the improbability that I should obtain any considerable compensation from increased sales under the royalty system, was the case of one of my works only, the "Principles of Psychology," and in respect of this, I may admit that there would be little danger of a rival edition. But it is not so with others of my works—with the work on "Education," now in its fourth thousand; with "First Principles," now in its fourth thousand, and especially with the just-issued first volume of the "Principles of Sociology." These are now sufficiently in demand, and, especially the last, sufficiently popular in manner and matter, to make rival editions quite probable.

Now, with respect to the stereotype plates, would they not enable you to exclude the rival edition of which you speak?—I think not. In the first place, the assumption that other publishers would be deterred from issuing rival editions by my stereotype plates, implies that other publishers would know I had them. I do not see how other publishers are to know it, until after I had myself printed new editions—even English publishers, and it is out of the question that colonial publishers should know it. Hence, therefore, the fact of my having stereotype plates would not prevent such rival editions. Consequently these rival editions, making their appearance unawares, would compete with my existing stock, printed in a comparatively expensive style, and would oblige me either to sacrifice that stock, or to lower the price to one far less remunerative. Then, subsequently, there would not be the supposed ability to compete so advantageously

with editions published by others. An edition to be sold at a cheap rate must not be in large type, well spaced, and with ample margins, but must be in small type, and much matter put into the page. Hence the existing stereotype plates, adapted for printing only books in a superior style, could not be used to print cheap books: the quantity of paper and the cost of printing would be much larger items than to one who arranged the matter fitly for a cheap edition.

Then are we to gather that you do not think that from any such cheap edition you would derive a profit from the royalty compensating you for your loss?—Nothing like compensating. Although the sales of these more readable books I have instanced might be considerably increased, the increase could not be anything like as great as would be required to produce the return I now have. Even supposing the price of the rival edition were the same, which of course it would not be, the 10 per cent. royalty would bring in the same amount, only supposing four times the number were sold that I sell now; and as, by the hypothesis, the price of the volume, to get any such larger sale, must be much lower, the royalty would bring in so much the less. If, say, "First Principles" were issued at half the present price, 8,000 would have to be sold instead of 1,000 to bring in by royalty the present returns. Such an increase of the sale would be out of the question; even one half of it would be improbable, so that certainly one half of my returns would be lost.

Have you any other personal experience that you wish to bring before the Commission to show that such a modification of the copyright law as you have been discussing would be disadvantageous to literature of the

graver kind?—I think I have. “First Principles” was published in 1862, and in the course of some years the doctrine it contains underwent, in my mind, a considerable further development, and I found it needful to re-organise the book. I spent five months in doing this; cancelled a large number of stereotype plates; and was thus at considerable cost of time and money. As I have already pointed out, the work being now in its fourth thousand, has had a degree of success such that there might, under the proposed arrangement, very possibly have been a rival edition at the time I proposed to make these alterations. Had there been such a rival edition, this cost of re-organisation to me would have been more serious even than it was; since the difference between the original and the improved edition, adequately known only to those who bought the improved edition, would not have prevented the sale of the rival edition; and the sale of the improved edition would have greatly diminished. In any case the errors of the first edition would have been more widely spread; and in the absence of ability to bear considerable loss, it would have been needful to let them go and become permanent. A kindred tendency of the arrest of improvements would occur with all scientific books and all books of the higher kind, treating of subjects in a state of growth.

With the object of rendering useful books as accessible as possible to the public, do you think that those engaged in their production and distribution should be restrained from making what might be called undue profits?—In answer to the first part of the question I hope to say something presently, showing that the advantage of increased accessibility of books is by no means unqualified; since greater accessibility may be a mis-

chief, if it tells in favour of worthless books instead of valuable books. But passing this for the present, I would comment on the proposition, which I perceive has been made before the Commission, that it is desirable to secure for books "the cheapest possible price consistent with a fair profit to those concerned." I here venture to draw a parallel. What is now thought so desirable respecting books, was in old times thought desirable respecting food—"the cheapest possible price consistent with a fair profit to those concerned." And to secure this all-essential advantage, more peremptory, indeed, than that now to be secured, there were regulations of various kinds extending through centuries, alike in England and on the Continent,—forbidding of exports, removing of middlemen, punishing of forestallers. But I need hardly recall the fact that all these attempts to interfere with the ordinary course of trade failed, and after doing much mischief were abolished. The attempt to secure cheap books by legislative arrangements, seems to me nothing less than a return to the long-abandoned system of trade regulations; and is allied to the fixing of rates of interest, of prices, of wages. In the past it was the greediness of money-lenders that had to be checked, or, as in France for many generations, the greediness of hotel-keepers; and now it appears to be the greediness of book-producers that needs checking. I do not see, however, any reason for believing that regulations made by law to secure cheap bread for the body having failed, there is likelihood of success for regulations aiming to secure cheap bread for the mind.

Then do we understand you to mean that no analogy furnished by past experience in commercial affairs can be held to imply that the proposed royalty plan would

succeed?—I think that all the facts are against it. I find it stated in the evidence lately given that there has not been raised “an insuperable objection in point of principle” to the plan of a royalty. If no such objection in point of principle has been raised, I think one may be raised; the objection, namely, that it is distinctly opposed to the principles of free trade. One of the aims of the plan, as expressed in the words of the same witness, is the “preservation of a fair profit to the author.” Now, on the face of it, it seems to me that any proposal to secure fair profits by legislation, is entirely at variance with free trade principles, which imply that profits are to be determined by the ordinary course of business. But further, I would point out that if it is competent for the legislature to say what is a “fair profit to the author,” I do not see why it is not competent for the legislature to say what is a fair profit to the publisher; indeed, I may say that it is not only as competent but much more competent. I take it to be impossible for the legislature to fix with anything like equity the profit of authors, if profit is to bear any relation to either skill or labour, as it should do; inasmuch as one author puts into a page of his book ten times as much skill as another, and, in other cases, ten times as much labour as another. Hence therefore, if they are to be paid at the same percentage on the price, there is no proportion in that case secured between the value of the labour and what they receive. Similarly, if we consider the number sold, the royalty which might afford ample return to an author who sold a popular book in large numbers would afford little return to an author who produced a grave book selling in small numbers. Obviously then it is extremely difficult, and in fact impossible, for the legislature to fix an equita-

ble royalty; but it is by no means so difficult for the legislature to fix an equitable rate of profit for the publisher. The function of the publisher is a comparatively mechanical and uniform function: the same practically for all books, the same for all publishers, and hence is a thing very much easier to estimate in respect of the proportion; and in fact we have the evidence that it can be fixed with something like fairness, inasmuch as publishers themselves voluntarily accept a 10 per cent. commission. Hence, I say, not only does the carrying out of the principle imply that if, in pursuit of alleged public advantage, the profit of the author should be fixed, then also should the profit of the publisher be fixed, but that it is much easier to do the last than to do the first. If so, then, it is competent for the legislature to go a step further. If there is to be a Government officer to issue royalty stamps, there may as well be a Government officer to whom a publisher shall take his printer's bills, and who adding to these the trade allowances, authors' 10 per cent. royalty, and publishers' 10 per cent. commission, shall tell him at what price he may advertise the book. This is the logical issue of the plan; and this is not free trade.

(*Sir H. Holland.*) You will hardly contend that the system of royalty is less in accord with free trade than the existing system of monopoly; you will not carry it so far as that, will you?—I do not admit the propriety of the word “monopoly.”

Without using the word “monopoly,” let me say, than the present system of copyright for a certain term of years?—I regard that as just as much coming within the limits of free trade as I hold the possession, or monopoly, of any other kind of property to be consistent

with free trade. There are people who call the capitalist a monopolist: many working men do that. I do not think he is rightly so called; and similarly if it is alleged that the author's claim to the product of his brain-work is a monopoly, I do not admit it to be a monopoly. I regard both the term "free trade" as applied to the unrestrained issue of rival editions, and the term "monopoly" as applied to the author's copyright, as question-begging terms.

Without saying what opinion I hold upon the point, and avoiding the use of the words "monopoly" and "free trade," I wish to know whether you think it most consistent with the doctrines of political economy, that every person should be able, upon payment, to publish a particular book, or that only one person should have it in his power to do so for a certain time?—Every person is allowed and perfectly free to publish a book on any subject. An author has no monopoly of a subject. An author writes a novel; another man may write a novel. An author writes a book on geology; another man may write a book on geology. He no more monopolises the subject than any trader who buys raw material and shapes it into an article of trade is a monopolist. There is more raw material which another man may buy. The only thing that the author claims is, that part of the value of the article which has been given to it by his shaping process; which is what any artizan does. The way in which this position of authors is spoken as "monopoly" reminds me of the doctrine of Proudhon—"Property is robbery." You may give a stigma to a thing by attaching to it a name not in the least appropriate.

(*Mr. Trollope.*) I understand your objection to a system of royalties to be this, that no possible *quota* that

could be fixed would be a just payment for all works?—That is one objection. There is no possibility of fixing one that would apply to all works, inasmuch as the thing paid for is an extremely variable thing, more variable than in almost any other occupation.

I put that question to another witness before you, but I am afraid failed to make him understand me. I am therefore glad to have the answer from you in order that we may show (I think you will agree with me) that no special royalty specified by Act of Parliament could be just to poetry, and to the drama, and to fiction, and to science, and to history at the same time?—Quite so. I think it obvious, when it is put clearly, that it cannot be; and that is an all-essential objection.

(*Sir H. Holland.*) Nor would it in your opinion be desirable that the question of determining what amount of royalty is proper in each case should be vested in some registrar or some single person?—It would make the matter still worse. It would be bad to vest it anywhere, but especially bad to vest it in any single official.

(*Chairman.*) Are we to assume that you think the plan of a royalty to be at variance with the established principles of the science of political economy?—I think quite at variance with the principles of political economy. The proposal is to benefit the consumer of books by cheapening books. A measure effecting this will either change, or will not change, the returns of those engaged in producing books. That it will change them may be taken as certain: the chances are infinity to one against such a system leaving the returns as they are. What will the change be? Either to increase or decrease those returns. Is it said that by this regulation the returns to producers of books will be increased, and that they only require

forcing to issue cheaper editions, to reap greater profit themselves, at the same time that they benefit the public? Then the proposition is that book-producers and distributors do not understand their business, but require to be instructed by the State how to carry it on more advantageously. Few will, I think, deliberately assert this. There is, then, the other alternative: the returns will be decreased. At whose expense decreased,—printers', authors', or publisher's? Not at the expense of the printers: competition keeps down their profits at the normal level. Scarcely at the cost of the authors; for abundant evidence has shown that, on the average, authors' profits are extremely small. Were there no other motive for authorship than money-getting, there would be very few authors. Clearly, then, the reduction of returns is to be at the cost of the publisher. The assumption is that for some reason or other, the publishing business, unlike any other business, needs its returns regulated by law. Thinking, apparently, of prosperous publishers only, and forgetting that there are many who make but moderate incomes and very many who fail, and thinking only of books which sell largely, while forgetting that very many books bring no profits and still more entail loss, it is assumed that the publishing business, notwithstanding the competition among publishers, is abnormally profitable. This seems to me a remarkable assumption. Embarking in the business of publishing, like embarking in any other business, is determined partly by the relative attractiveness of the occupation and partly by the promised returns of capital. There is no reason to think that the occupation of publishing differs widely from other occupations in attractiveness; and hence we must say that, competing for recruits with many other businesses,

it must on the average, offer a like return on capital. Were it found that the average return on capital in publishing was larger than in other businesses, there would immediately be more publishers; and competition would lower the returns. If, then, we must infer that, taking the returns of all publishers on the average of books, their profits are not higher than those of other businesses; what would be the effect of such a measure as that proposed, if, as anticipated, it lowered publishers' returns? Simply that it would drive away a certain amount of capital out of the publishing business into more remunerative businesses. Competition among publishers would decrease; and as competition decreased, their profits would begin to rise again, until, by and bye, after a sufficient amount of perturbation and bankruptcy, there would be a return to the ordinary rates of profit on capital, and the proposed benefit to the public at the cost of publishers would disappear.

Then, with a view to the permanent cheapening of books, we may gather that your opinion is that it would not be effected in the way suggested?—I think not. The natural cheapening of books is beneficial; the artificial cheapening mischievous.

May I ask you to explain what you mean by contrasting the natural and the artificial cheapening of books?—By natural cheapening I mean that lowering of prices which follows increase of demand. I see no reason, *à priori*, for supposing that publishers differ from other traders in their readiness to cater for a larger public, if they see their way to making a profit by so doing; and, *à posteriori*, there is abundant proof that they do this. The various series of cheap books, bringing down even the whole of Shakespeare to a shilling, and all Byron to

a shilling, and each of Scott's novels to sixpence, sufficiently prove that prices will be lowered in the publishing trade if the market is adequately extensive, just as in any other trade. If it be said that in this case authors have not to be paid, I would simply refer to such a series as that of Mr. Bohn, who, notwithstanding the payments to translators and others, published numerous valuable books at low rates. Moreover, we have conclusive evidence that with the works of still-living authors the same thing happens, when the market becomes sufficiently large to make a low price profitable. Witness not only the cheap editions of many modern novels, but the cheap editions even of Mr. Carlyle's works, and Mr. Mill's works. Deductively and inductively, then, we may say that there is a natural cheapening of books, going as far as trade profits allow; as there is a natural cheapening of other things. Conversely, I mean by artificial cheapening, that kind which is anticipated from the measure proposed; for it is expected by means of this measure to make publishers issue books at lower rates than they otherwise do. And this is essentially a proposal to make them publish at a relative loss. If, as already argued, the average rates of publishers' profits are not above those of ordinary business-profits, these measures for lowering their prices, must either drive them out of the business or be inoperative. To put the point briefly—if there is an obvious profit to be obtained, publishers will lower their prices of their own accord; and the proposed competitive system will not make profits obvious where they were not so before.

But if there was free competition on the payment of the author's royalty, might it not be that another publisher would be led to issue a cheap edition when the original

publisher would not?—I see no reason to think this. The assumption appears to be that everybody but author and original publisher can see the advantage of a cheap edition, but that author and original publisher are blind. Contrariwise, it seems to me that the original producers of the book are those best enabled to say when a cheap edition will answer. The original producers of the book know all the data—number sold, cost, return, and so forth; and can judge of the probable demand. Another publisher is in the dark, and it does not seem a reasonable proposition that the publisher who is in the dark can best estimate the remunerativeness of a cheap edition. If it is hoped that, being in the dark, he may rashly venture, and the public may so profit, then the hope is that he may be tempted into a losing business. But the public cannot profit in the long run by losing businesses.

(*Sir H. Holland.*) Take the “Life of Lord Macaulay”; you know that Tauchnitz has published a cheap edition in four volumes,—a very neat edition, good paper and good print. Is it not possible that if this system of royalty is introduced, without considering whether the author would lose by it, a cheap edition like that would be put upon the market at once, and would pay the publisher?—It is possible that it would be done earlier than it is now done. I take it that the normal course of things is that, first of all, the dear edition should be published and have its sale, and supply its market, and that then, when that sale has flagged, there should come the aim to supply a wider market by publishing a cheap edition.

You are aware that one of the advantages which the advocates of this royalty system most strongly dwell upon, is that under the present system the great mass of

the reading public are not able to purchase the books; those who have the advantage of circulating libraries can get them and read them, but poorer persons can neither purchase nor read them, whereas under the other system an edition like Tauchnitz would be at once put out, and it is contended that this, though it might be a loss to the author, would be a benefit to the public?—Then I take it that the proposal really amounts to this, that whereas, at present, the poorer class of readers are inconvenienced by having to wait for a cheap edition a certain number of years, they shall, by this arrangement, be advantaged by having a cheap edition forthwith; which is to say that people with smaller amounts of money shall have no disadvantages from their smaller amounts of money. It is communistic practically: it is simply equalising the advantages of wealth and poverty.

(*Chairman.*) Then we may assume that in your opinion the royalty system would not operate in cheapening books in the long run?—I think that in the first place, supposing it should act in the manner intended, by producing rival editions, it would act in cheapening just that class of books which it would be a mischief to cheapen. I have already intimated in a previous reply, that the alleged advantage of cheapening books is to be taken with a qualification; inasmuch as there is a cheapening which is beneficial and a cheapening which is injurious. And I have got, I think, pretty clear evidence that the class of books cheapened would be a class which it is undesirable to cheapen. Being one of the committee of the London Library, I have some facilities for obtaining evidence with regard to the circulation of various classes of books; and I have got the librarian to draw me up what he entitles—“Recorded circulation of the fol-

lowing books during the three years following their introduction into the London Library.” Here, in the first place, is a book of science—Lyell’s “Principles of Geology”; that went out 28 times. Here, on the other hand, is a sensational book,—Dixon’s “Spiritual Wives”; that went out 120 times. Here, again, is a highly instructive book,—Maine’s “Ancient Law”; that went out 29 times. Here is a book of tittle-tattle about old times,—“Her Majesty’s Tower”; that went out 127 times. Here, again, is another book of valuable inquiry,—Lecky’s “European Morals”; that went out 23 times. Here is a book of gossip,—“Crabb Robinson’s Diary”; that went out 154 times. Lecky’s “History of Rationalism” went out 13 times; Greville’s “Memoirs” went out 116 times. Herschel’s “Astronomy” went out 25 times; Jesse’s “George the Third” went out 67 times. I have added together these contrasted results, and the grave instructive books, taken altogether, number 118 issues, while the sensational and gossiping books number 584 issues; that is to say, more than five times the number of issues. Now, the London Library is, among circulating libraries at least, the one which is of all the highest in respect of the quality of its readers: it is the library of the *élite* of London. If, then, we see that there go out to these readers five times as many of these books which minister to the craving for excitement, and are really dissipating books, as there go out the grave, serious instructive books, we may judge what will be the proportion of demand for such books in the public at large. Now let us ask what a publisher will do in face of these facts. He knows what these demands are; and he has to choose what books he will reprint. A publisher who has laid himself out for rival editions is compara-

tively unlikely to choose one of the really valuable books, which needs more circulating. I will not say he will never do it. He will do it sometimes; but he will be far more likely to choose one of these books appealing to a numerous public, and of which a cheap edition will sell largely. Hence, therefore, the obvious result will be to multiply these books of an inferior kind. Now already that class of books is detrimentally large: already books that are bad in art, bad in tone, bad in substance, come pouring out from the press in such torrents as to very much submerge the really instructive books; and this measure would have the effect of making that torrent still greater, and of still more submerging the really instructive books. Therefore, I hold that if the stimulus to rival editions acted as it is expected to act, the result would be to multiply the mischievous books.

(*Mr. Trollope.*) Do you not think that in making the parallel that you have there made you have failed to consider the mental capacities of readers?—I was about, in answering the next question, to deal indirectly with that; pointing out that while there is a certain determining of the quality of reading by the mental capacity, there is a certain range within which you may minister more or you may minister less. There are people who, if they are tempted, will spend all their time on light literature, and if they are less tempted will devote some of their time to grave literature. Already the graver books, the instructive books, those that really need circulating, are impeded very much by this enormous solicitation from the multitude of books of a gossipy, sensational kind. People have but a certain amount of time, and a certain amount of money, to spend upon books. Hence what is taken of time and money for uninstructive

books is time and money taken away from the instructive; and I contend that if there were a diminution in the quantity of the books of this sensational kind published, there would be a larger reading of the really instructive books; and that, conversely, the multiplication of this class of lighter books would tend to diminish the reading of instructive books. I am now speaking, not, of course, of the higher amusing books, because there are many that are works of value, but of the lower novels, Miss Braddon's and others such.

Do you think that a man coming home, say, from his 8 or 10 hours labour in court day after day is in a condition to read Lyell's Geology as men read one of Miss Braddon's novels? We are speaking of some ordinary man.—No, not an ordinary man, certainly.

Have we not to deal with literature for ordinary men? —For both ordinary and extraordinary men; the whole public.

Are not the ordinary men very much the more numerous?—Certainly.

Is it not, therefore, necessary to provide some kind of literature, as good as you can, but such that the ordinary mind can receive and can turn into some profit, together with the normal work of life?—I am not calling into question in the least the desirableness of a large supply of literature of an enlivening and amusing and pleasant kind, as well as a large supply of graver literature. My remarks point to the literature that is neither instructive nor aesthetic in the higher sense, but which is bad in art, bad in tone, worthless in matter. There is a large quantity of that literature, and that literature I take to be the one which will be the most fostered by the proposed measures. I do not in the least reprobate the read-

ing of lighter works if they are good in quality. I refer to the class of works which I regard as not good in quality.

But do you not think you must leave that to settle itself on those principles of free trade which you have just enunciated so clearly?—Certainly; I am objecting to a policy which would tend to encourage the one and not encourage the other.

(*Sir H. Holland.*) The subscribers to the London Library are, as you say, the *élite* of readers?—Yes.

And is not that the reason why there is this difference as to the reading of good and bad books taken out from that library; is it not attributable to the fact that these people have probably bought and have in their own houses the good books, but that they want to look through these other books, and therefore get them from the library?—There may be a qualification of that kind; but inasmuch as a very large proportion of the readers of the London Library are ladies, and those who come for lighter literature, I do not think it at all probable that they would have bought Lecky or Maine, or any books of that kind.

I ask the question because I rather think that you will find a very curious difference from that which you have been stating if you go to the Manchester and Liverpool free libraries. You will find there that the working men take out largely Macaulay's "History of England" and that class of book?—Well, whatever qualifications may be made in this estimate, or the inferences from this estimate, I do not think they can touch the general proposition that books of this kind which in the London Library circulate most largely, are books of the kind which circulate most largely among the general public,

and books of the kind which a publisher of rival editions would choose. That is my point.

But might not that very evil to which you refer be met by improving the taste of the majority of the poorer readers, by enabling them to get at once cheap editions of good books?—The question is, which are the cheap editions that will be issued. I contend that they are the cheap editions of these books of a dissipating kind; and that the main effect will be to increase the dissipation.

You do not think that the earlier publication of a cheap edition would raise the tone of readers?—I do not see that it would do so, unless it could be shown that that would tell upon the graver and more instructive books. My next answer, I think, will be an answer to that.

If you improve the tone of the readers, of course it does tell upon the graver books for those who have time to read the graver books; but there is a large class of readers who have not that time?—Yes.

(Chairman.) Referring to the illustrations which you have just given of works which you would denominate as worthless, or comparatively valueless, did I hear among them historical memoirs and journals?—“Crabbe Robinson’s Diary,” for instance; I call that a book of gossip which anybody may read and be none the better for it.

The question I should like to ask is, are you not of opinion that books of that sort are extremely valuable to the intending historian of the epoch to which they refer? —It may be that there are in them materials for him. I have not read the “Greville Memoirs” myself, and I have no intention of reading it; but my impression is that the great mass of it is an appeal to the love of gossip

and scandal, and that it is a book which, if not read at all, would leave persons just as well off or better.

Take "Lord Hervey's Memoirs," in the reign of George the Second; if you had the privilege of reading that book you would probably say it was an extremely sensational book, but knowing the position which Lord Hervey occupied in the Court and family of George the Second, I presume we may take for granted that the extraordinary facts which he relates are facts; and if so they would form the basis of a great deal of truthful history, which would be written of that reign; would not that be so?—It might be so, no doubt.

Then we understand you to mean that in your opinion the royalty system would not cheapen works that you would describe as valuable?—I think, on the average of cases, quite the contrary. I believe the system would raise the prices of the graver books. Ask what a publisher will say to himself when about to publish a book of that kind, of which he forms a good opinion. "I have had a high estimate given of this book. The man is a man to be trusted; the book possibly will be a success. Still my experiences of grave books generally, are such that I know the chances are rather against its succeeding. If it should be a success, and if I had ten years now to sell the edition, I might print 1,000; but, under this arrangement, a grave book not selling 1,000 in three years, or anything like it, it will never do for me to print 1,000. Should it be much talked about by the end of the three years, there might be a rival edition, and my stock would be left on my hands. Hence, now that there is this very short time in which I can sell the book, I must print a smaller number—say 500. But if I print 500 and expect to get back outlay and a profit on that small number,

I must charge more than I should do if I printed 1,000 and had time to sell them. Therefore the price must be raised.” In the case of a book which did turn out a success, it might eventually happen that there would be a cheap edition issued, and that that raised price would not be permanent; but this argument of the publisher with himself, would lead him to raise the price, not only of that book, but of the other grave books which he published, all of which would stand in the same position of possibly being successes, but not probably; and of these, the great mass, the nine out of ten that did not succeed, the price would remain higher,—would never be lowered. There would not only be that reason for raising the price: there would be a further one. If a man in the wholesale book-trade, who puts down his name for a certain number of copies, knows that a cheaper edition will possibly come out by-and-bye, the result will be that he will take a smaller number of copies than he would otherwise do. At the beginning he may take his 25 or 13, as the case may be; but as the end of the three years is approaching he will say, “No, I will not take a large number; I must take two or three.” Then, still further, the reader himself will be under the same bias. He will say—“Well this book is one I ought to have: I hear it highly spoken of, but it is probable that there will be by-and-bye a cheap edition; I will wait till the end of the three years.” That is to say, both wholesale dealers and readers would earlier stop their purchases, thinking there might be a cheap edition; and that would further tend to diminish the number printed and to raise the price.

(*Sir H. Holland.*) Might it not be that the publisher, instead of entering into those calculations that you have pointed out, would consider, knowing that other

editions may appear, “ What is the cheapest form in which I can print this book? What can I afford to give the author consistently with bringing out the cheapest possible book, so that I may be secure against any other publisher bringing out a cheaper edition ”?—It would be a very reasonable argument, if he knew which, out of these various books of the graver kind, was going to succeed; but since nine out of ten do not succeed—do not succeed, at least, to the extent of getting to a second edition—do not succeed, therefore, so far as to make it at all likely that there would be a rival edition, and that a cheap edition would pay, he will never argue so; inasmuch as he would in that case be printing, of the nine books that would not succeed sufficiently, a larger edition than he would ever sell. He must begin in all these cases of doubtful grave books by printing small editions.

Where an author brings a book to a publisher, the first question the publisher asks himself is, of course, this, “ Is this book likely to take? ” and then if he thinks it will take, he has to consider further, in what degree will it take? Will it have a large sale or limited sale? Because, in each case the book may be a success, though in a different degree. Then, if it is competent for any other publisher to publish an edition, it may be assumed that such edition would be a cheap one; and, therefore, has not the original publisher this further question to put to himself: “ The book, I think, will take, but looking to the chances of a cheaper edition, I must see what compensation I can give to the author, publishing this book as cheap as possible, so that I may not be underbid hereafter ”?—But, I think, that the experiences of publishers show that it does not answer their purpose to run the risk of cheap editions with the great mass of graver

books; inasmuch as nine out of ten of them do not pay their expenses—and do not pay their expenses, not because of the high price, but because they do not get into vogue at all. The publisher would argue—"It will never do to print cheap editions of all these ten because one out of the number will succeed."

Of course he does not do so now, because there is not any possibility of another publisher underbidding him by a cheap edition; but I am assuming a case where any publisher, on payment of a royalty, can publish a cheap edition: then the original publisher would have to consider, "How cheaply can I publish this edition so that I may not be underbid by another publisher"?—That, I say, would altogether depend upon the experience of the publishers as to what was, in the average of cases, the sale of a new book. In most instances the sale of a new grave book is very small—not sufficient to pay the expenses; and I think the publisher would make a great mistake if, in the case of such a book, he counted upon getting a large sale at once by a low price. The other argument would, it seems to me, be the one he would use. In fact, I not only think so, but I find my publishers think so.

(Chairman.) Do you wish to instance any particular case in which you believe that a fixed royalty, such as we heard about, would have hindered the diffusion of a book of permanent value?—Yes; I have an extremely striking and, I think, wholly conclusive, instance of the fatal effects,—the extensive fatal effects,—that would have resulted had there been any such system existing as that proposed. I refer to the "International Scientific Series." I happen to know all about the initiation of that. It was set on foot by an American friend of mine, Prof. You-

mans, who came over here for the purpose. I aided him, and know the difficulties that were to be contended with, and a good deal concerning the negotiations. The purpose was to have a series of books written by the best men of the time, in all the various sciences, which should treat of certain small divisions of the sciences that are in states of rapid growth—giving to the public, in popular form, the highest and latest results; and it was proposed, as a means of achieving this end, that there should be an international arrangement, which should secure to authors certain portions of profits coming from translations, as well as profits from originals at home, and the hope was that some publisher might be obtained who would remunerate these authors of the highest type at good rates, so as to induce them to contribute volumes to the series. Well, this attempt, after much trouble, succeeded. A number of the leading scientific men of England, France, and Germany were induced to co-operate. A publisher was found, or rather publishers here and elsewhere, to enter into the desired arrangements; and an English publisher was found who offered such terms to authors in England as led men in the first rank (and I may mention Prof. Huxley, and Prof. Tyndall, and Prof. Bain, and Prof. Balfour Stewart, and a great number of others) to promise to write volumes. These men, I know, were reluctant, as busy men, with their many avocations, and their incomes to get for their families, would naturally be, and were induced to enter into the scheme only on its being made manifest to them that they would reap good profits. The English publisher offered a 20 per cent. commission on the retail price, paid down on first publication, and for every subsequent edition paid six months after date; and there were certain

smaller percentages to come from abroad. Now, the English publisher proposed to give those terms, knowing that it would be impossible for him to get back his outlay unless he had a number of years in which to do it. He had to stereotype, he had to pay at once these sums to authors, and he had to publish the books at a cheap rate; for, by the way, I ought to have said that part of the plan was that these books should be sold at low prices: I may instance a volume of 420 pages for 5s. These terms would, I take it, have been absolutely out of the question had there been such an arrangement as that under which the publisher, instead of having many years to recoup himself, would have had rival editions to compete with in the space of three years. I do not, however, put that as an opinion. I have taken the precaution to obtain from Mr. King, the publisher, a definite answer on the point. This is the paragraph of his letter which is specially relevant:—"Authors can have no difficulty in proving that this" (meaning the system which I told him was proposed) "would be most unjust to them, a confiscation, in fact, of their property; but I, from a publisher's point of view, should like to declare that the terms on which my firm have undertaken the 'International Scientific Series' would be impossible on such a limitation." Now here, then, we have a series of highly valuable books, I think of the kind specially to be encouraged, amounting to between 20 and 30 already published, and potentially to a much larger number, which would not have existed at all had there been in force the arrangement proposed; inasmuch as the publisher affirms that he would not have offered such terms, and I can testify that in the absence of terms as tempting as those, authors would not have agreed to co-operate.

(*Sir H. Holland.*) Was Mr. King made aware that there would be a limited time within which each volume would be protected?—Yes, three years. He did not count upon anything like adequate return in that time. He says—“We are a long way off profit as yet on the series” (I think it is nearly five years since it commenced), “although I am convinced that ultimately we and the authors, too, will be well satisfied.”

That would raise the question which I wanted to put, whether in a case like that it would have been possible to have published a cheaper edition than the one now published?—Yes, in the absence of the author’s 20 per cent.

In the case which you have brought to our notice may we assume that the cheapest form of edition was published consistently with fair profit to the author and publisher?—I think, certainly, with anything like a tolerable mode of getting up. Of course you may bring down a thing to rubbishing type and straw paper; but I was speaking of a presentable book. They are very cheap for presentable books.

That, perhaps, would be one of the evils arising from a system of royalty, that you would get extremely bad and incorrect editions published of a book, even in the first instance?—Very likely.

Because it would be the publisher’s object, if that system were thoroughly established, to publish such an edition that another publisher could not underbid him at the end of the three years; that would be, would it not, the general object of the publisher?—Yes.

In this case I understand you to say that he could not, consistently with fair profits to the author and publisher, and consistently with its being a properly printed

work, without which a work of that kind would be of very little value, have published a cheaper edition?—He could not.

And yet he would not have been able to publish such an edition if he had run the risk of being underbid?—Certainly not. He says—“I confess my idea in proposing such terms as those of the ‘International Scientific Series,’ looked forward to a yearly increasing interest in scientific literature, and an ever enlarging circle of readers able to appreciate books of a high class.” So he was looking for a distant effect.

I am anxious, as Mr. King is not here, to get your own opinion upon that point; do you concur in his views?—Yes, certainly.

(Chairman.) Have you any further reasons for thinking that measures of the kind which we have been discussing, taken in the interest of cheapening books, might end in doing the reverse?—I think there is another way in which there would be a general operation of this system of rival editions, which would have, indirectly, the effect of raising the prices all round; namely, the waste of stock. It would inevitably happen that every publisher of an original edition would, from time to time, have a rival edition make its appearance before his edition was sold. In that case his remnant of an edition got up in a relatively expensive style, would either have to be not sold at all or sold at a sacrifice. Further, it would happen from time to time that two publishers, unknown to one another, would issue rival editions, both of which would not be demanded; there would therefore be a waste of stock. Evidently the system of competing with one another in the dark, would continually lead to production in excess of demand. What would be the

result? If there is an increased percentage of waste stock, that has somehow to be paid for, if business is to be carried on at all. And as we know that tradesmen have to raise their average prices to cover their bad debts; so, if publishers find an increase of bad stock they must raise their prices to cover the loss on bad stock.

(*Mr. Trollope.*) Would not the ordinary laws of trade correct such an evil?—This interference with the laws of trade would entail an abnormal production of waste stock. Under the present system a publisher does not publish a cheap edition till the other is gone; but under the proposed system, with cheap copies perhaps sent from the colonies, there must be waste stock.

When the system had been in operation for a time do you not consider that that evil would correct itself by the ordinary laws of trade? We are aware that at first the disruption of an existing state of things will create much confusion, and such evil as you have described; but are you not of opinion that this would rectify itself after a time?—I do not see how it could rectify itself, if the system of rival editions continued, and operated in the way that it is expected to do. But as I have already indicated by certain hypothetical remarks, I do not think it would continue and operate in that way. I say, however, that if rival editions were issued by men not knowing each other's doings, there must from time to time occur in the business of each publisher loss of stock.

(*Chairman.*) From the answer to the last question that has been put by Mr. Trollope I gather it to be your opinion that the arrangement would be practically inoperative so far as the anticipated competition was concerned?—I think that after a period of perturbation, a period of fighting and general disaster in the publishing

business, there would arise a tacit understanding among publishing houses, which would, in a large degree, defeat the purpose of the measure; and I say this on the strength of definite facts furnished by trade-practices in America. These facts I have from the before-named American friend, Prof. Youmans, with whom from time to time, when over here, I have had to discuss the probability of pirated editions of my own books in America. My books in America are published by a large house there, the Appletons; and they deal with me very fairly —pay me as well as American authors are paid. I have gathered from Prof. Youmans that the danger of the issue of rival editions of my books in America is very small; because there exists among the American publishing houses, the understanding that when one house brings out an English book, other houses will not interfere: the mere circumstance of having been the first to seize upon a book, is held to give a priority, such as is tacitly regarded as a monopoly. That condition of things has been established through a process of fighting; for when it did at first happen that American houses brought out rival editions of the same English book, or one edition, rather, after another, that, of course, was a declaration of war between the two houses, and immediately there was retaliation, and it ended in a fight. The house attacked revenged itself by issuing, perhaps, a still cheaper edition, or by doing the like thing with some work subsequently published by the aggressing house; and after bleeding one another in this way for a length of time there resulted a treaty of peace, and a gradual establishment of this understanding, that they would respect each other's priorities. If that is what happened in America, when the only claim that a pub-

lisher had to the exclusive publication of a book was the claim established by prior seizing of it, of prior printing, much more will it happen here in England, among publishers who have paid for their books, or who have entered into arrangements with authors for half profits, or what not. Having established certain equitable claims to these books they will very much more decidedly fight any houses that interfere with them, by issuing rival editions. If the men who have ill-founded claims fight, still more will the men who have well-founded claims fight. Hence, there would occur among the English publishers, when this system came into operation, a period of warfare lasting, probably, for some years, and ending in a peace based on the understanding that any publisher who had brought out a book would be regarded as having an exclusive claim to it, and would not be interfered with. The fear of retaliation would prevent the issue of the rival editions.

(*Sir Henry Holland.*) And therefore would prevent the publication by a rival publisher of a cheaper edition?—Yes.

(*Chairman.*) Then on the grounds that you have explained, you think the system would become before long wholly inoperative?—Not wholly inoperative, I think: inoperative for good, not inoperative for evil. In the course of this early phase to be passed through, in which houses issued rival editions against each other and got into the state of warfare, it would happen that the weaker would go to the wall: the smaller publishers would not be able to stand in the fight with the larger publishers, and they would tend to fail. And further, although treaties of peace would be eventually reached between the more powerful publishers, who would be

afraid of each other, and dare not issue rival editions of each others books, there would be no such feeling on the part of large publishers towards small publishers. If a small publisher happened to issue a successful book, a larger publisher would have no fear in issuing a rival edition of that. Hence, therefore, the tendency would be for the small publishers to be ruined from having their successful books taken away from them. But that would not be the only tendency: there would be a secondary tendency working the same way. For after this fighting had gone on a year or two, it would become notorious among authors that if they published their books with small publishers they would be in danger of rival editions, in case of success, being issued by large publishers; but that, contrariwise, if they published with large publishers they would be in no danger of rival editions. Hence they would desert the small publishers; and in a double way the small publishers would lose their business. We should progress towards a monopoly of a few large houses; and the power which such have already of dictating terms to authors, would become still greater.

And if I understand you rightly, the power would be not only to dictate terms to authors but of price to the public?—Yes, they would be able to combine. When you got a small number of publishers, and they could agree to a system of terms: the public would be powerless against them, and authors would be powerless against them.

Then, in your opinion, is there any way by which works could be cheapened by legislative enactment?—There is one way, and that a way in principle exactly the reverse of that which is contended for in this meas-

ure; namely, the extension of copyright. I do not mean the extension in time; I mean the extension in area. On this point I am happy to say there appears to be agreement between the two sides. From the evidence which I have read I gather that it is proposed along with this limitation of copyright in time to extend copyright in area. I do not altogether understand the theory which, while it ignores an author's equitable claim to the product of his brain-work in respect of duration, insists upon the equity of his claim to that product of his brain-work, as extending not only to his own nation but to other nations. However, I am glad to have agreement so far; and I hold, along with those who support the proposed measure, that the enlargement of the markets by means of international copyright would be a very effectual means of cheapening books. It would be a more effectual means of cheapening the best books. I may refer again to this International Scientific Series. One of the means by which that series has been made cheap, was, that the American publisher and the English publisher, agreed to share between them the cost of production, in so far as that the American publisher had duplicate stereotype plates and paid half the cost of setting up the type. Now it is clear that if the outlay is diminished by having one cost of composition for two countries instead of a cost for each, the book can be issued at a lower rate in both countries than it could otherwise be. And that arrangement which was voluntarily made, under a kind of spontaneous copyright, in the case of the International Series, would be forced, as it were, upon publishers in the case of an established copyright. Consequently there would be habitually an economization of the cost of production, by dividing it between the two countries; and

hence there would be a lowering of the price. And then there is the further fact that this would tell especially upon the more serious books. On books of a popular kind the chief cost is for paper and print: large editions being printed. Therefore it does not so much matter in America having to set up the type afresh. But in the case of a grave book of which the circulation is small, the cost of composition is the main element in the cost; and the economization of that cost, by dividing it between England and America, would serve very considerably to lower the price.

(*Dr. Smith.*) Then, if I understand you aright, you do not approve of the principle adopted in the Canada Act, in the Act passed by the Canadian Legislature of 1875, confirmed by the Imperial Act, by which it is necessary in order to obtain copyright in Canada that the works should be set up afresh?—I think that it is obviously nothing else than a means of staving off the opposition of printers, and a very mischievous arrangement.

Would it not be the fact that if a work could be set up once for all in the country, and circulate in the two countries, the price of the book would be diminished?—Unquestionably.

(*Sir. H. Holland.*) You are aware of the difficulties that have been raised by the United States publishers, that constant attempts have been made ever since 1854 and before to make a copyright convention, and that there is no very great probability of these attempts proving successful. Have you any particular suggestion to bring before the Commissioners which would in your opinion tend towards making the Americans favourable to a convention?—I am sorry to say I do not see my way

towards any such suggestion. I am merely replying to the general question whether legislation could do anything to cheapen books, and saying that the only thing I thought it could do would be to get, in some way, an extension of area for copyright.

The following is the speech referred to above as having been made at a meeting of the National Association for the Promotion of Social Science.

With respect to the duration of copyright, I would remark first, that if any *reason* is to be given for fixing a term of years, a good one may be given for the Commissioners proposal; whereas, for the term proposed in this bill I see no reason: why fifty rather than sixty or forty should be fixed cannot be shown; but it may be shown why copyright for life and thirty years after death is reasonable. The author is a man carrying on a money-getting occupation, and should, if possible, be put in the position of feeling that he is doing as well as may be for his family, and that he is not by following that occupation in place of another sacrificing them. If he is conscious that by pursuing authorship he runs the risk of leaving his children without any provision after his death, he may be led to think that duty to them should make him choose another occupation. But by making the duration of copyright for his life and thirty years afterwards, he is encouraged by a reasonable belief that he will leave means for supporting his family for a term sufficient to allow his children to be brought to a self-supporting maturity. Let me next refer to another reason given very clearly by Mr. Westlake for preferring a fixed termination of copyright after death, rather than a series of terminations of different dates, for

the works published at different dates. It happens that I can give personal illustrations of the great inconveniences, and I may say mischiefs, which would arise from the termination of an author's copyrights at different dates. I was not aware until two days ago, when talking to Dr. Smith on this question, that the existing cheap edition of Hallam's *Middle Ages* is an imperfect work. I have been making quotations from that work. I shall now have to go back on my quotations and see if I have been betrayed into errors; and observe, further, that but for mere accident I should have been in the predicament of, perhaps, having quoted obsolete passages. I will give a second illustration, also personal, but in another way. In 1862 I published a work entitled *First Principles*. Although the ideas contained in it were true as far as they went, they were imperfectly developed and were imperfectly organised. That which was primary was put as secondary and *vice versâ*. At the end of five years I published a second or a re-organised edition presenting the doctrine under quite a different aspect. Now what would happen in this case supposing copyrights terminated at the end of fifty years? My edition of 1862 would be republished in a cheap form, while the re-organized edition was still copyright; and for the succeeding 5 years there would be a propagation of my erroneous views; and the imperfect edition, filling the market, would hinder the spread of the perfect edition when subsequently published. In brief I may say that this proposal is one which, if carried out, would establish a premium on the propagation of error. I pass now to the question of colonial reprints. If the clause which gives reprinting powers, under certain conditions, had been a clause in a bill proposed centuries ago, I

should not have been surprised; but that such a clause should appear in a bill at the present time after the free trade doctrines have been established, is to me astounding. I read in this clause (the 72nd)—“Whereas it is desirable to provide means whereby the inhabitants of all British possessions may obtain, at a moderate price, a sufficient supply of books . . .” Thus we have actually come back to the notion that it is the duty of the state to provide the colonies with a supply of a commodity at a moderate price. It is really a reversion to the form of legislation which in old times dictated the rates of wages, provided for the qualities and quantities of goods, entered into factories to inspect processes of production, established bounties and restrictions, and so forth. For all these things were done with the view of obtaining good supplies of commodities at reasonable rates. What can possibly be the defence for this revival of antique legislation? It is that though the state has proved a bad judge in respect of food and clothing, and things of daily use, it is likely to be a good judge in respect of literature? Is it that having failed in the relatively easy thing, it will succeed in the relatively difficult thing? Then, further, what is the particular authority which it is proposed to constitute the judge? The Governor of the colony. Who is he? Usually he is a general. Is he a fit man to judge whether a certain book is adequately supplied in the colony, and whether such and such a price is a reasonable one for it? Then what is proposed by way of defence for the author? The author is to have due notice of the proposed reprint. He may, it seems, go personally and make objections; but what author will ever go to the colony to oppose? He may do it by his agent; but what agent has the author in a

colony? He probably knows nobody there. Supposing he could find a fit agent, what likelihood is there of the cost of such a transaction ever being repaid, even supposing he succeeds in his opposition? The cost of the transaction would, probably, be more than the author would get for an edition of his work. Practically, therefore, the clause involves abolition of copyright in the colony; and we have good reasons for suspecting that the proposed royalty would bring next to nothing. Even supposing it should turn out that the arrangement worked as intended, I should still demur to the assumption that the colony would benefit. It continually happens in every kind of legislation that the unanticipated results immensely exceed in importance the anticipated results. We may suspect it would be so here. For what would be the books which a colonial publisher would be likely to reprint? Clearly the books which would repay him. What would they be? Why the novels of the day, the gossiping biographies, the books which feed the voracious appetite for personalities: those would be the books they would seize upon for the purpose of reprinting. But the books of an instructive kind, the books of small circulation, would not, in most cases, pay the expenses of their republication. But if, while you do not cheapen the instructive books, you do cheapen the amusing books, you make it easier for people to satiate their appetites upon these and diminish their appetites for the others. If those who have daily but a short time for reading can get easy access to the one kind of literature, while the access to the other kind is difficult, they will be led to read more of the first than they would otherwise do, at the expense of the last. The consequence will be not an educating influence but an uneducating influence. Before closing,

let me say a few words on the general question of copyright. There is a current belief, which was expressed before the commission, that copyright is an artificial arrangement—that it is some privilege granted by the state to secure the author a monopoly. I hold this to be an erroneous view. If the state will in this matter do what the state has to do in all other matters of commerce, namely, enforce contracts, copyright comes into existence as a matter of course. In all other trading transactions, the law recognises contracts, both overt and tacit. It not only recognises those in which there has been an agreement by signature; it recognises those in which not even an oral agreement has been made. If a man goes into a shop and asks for a pound of tea or any other commodity, and it is handed over to him, it is not supposed to be requisite that he should specify beforehand that he will give so much money for it. That is to say, the state in these cases recognises the tacit contract to pay a price, though this has not been mentioned. What is the tacit contract with regard to a book? When the buyer of a book goes into a shop and buys from the author's agent, what is the contract entered into in the purchase of that book? The tacit understanding is that it is sold for the purpose of reading, either by the individual or other individuals, and for no other purpose. Ask what would happen if the purchaser announced that he was about to use that book for reprinting. Clearly it would either not be sold to him at all, or it would be sold at a relatively immense price—a price such as would cover the profit on the edition. If, therefore, the law is to enforce tacit contracts, it is to enforce this tacit contract, that the book bought shall be for reading purposes and not for reprinting purposes; and if it enforces this tacit contract, copy-

right results as a consequence. I contend, then, that the state has nothing more to do in the matter than to make provisions for carrying out this tacit contract in all its details. A word as to the cheapening of literature. The true way to get cheap books is rigorously to abide by copyright as thus resulting, and to extend its area. Such extension of copyright as would bring under it a larger population, and therefore a larger number of purchasers, would make it possible to lower the prices of books; but if you narrow the area of the copyright and so diminish the number of purchasers of the book, you necessarily raise its price. This proposed arrangement, by which colonists are to have a cheaper book, will, by cutting off the colonial sale of the English edition, raise the price in England. Conversely, if copyright could be extended by including the United States, the prices of all books might be lowered. Where there is an agreement, as there frequently is already, between British and American publishers to share the cost of composition and stereotyping, the prices charged for books are reduced both here and in America. Under an international copyright this exceptional result would become a general result.

In reply to objections there were the following supplementary remarks.

It is rather odd that we should get to the abstract question at the end of our discussion, and not at the beginning. We should have settled the basis at first. I now find myself in the position of having to prove that copyright is not, as it has been called, a monopoly; and to prove that the maintenance of copyright is really free trade. I can hardly go into the matter adequately now;

but I would point out that a monopoly, properly so-called, and free trade, properly so-called, have these characters. The monopolist is a man who stands in the way of some one who, in the natural order of things, would be able to carry on some business in his absence just as well as in his presence. The free-trader is one who needs no aid from the monopolist, but simply wishes to do that which he could do did the monopolist not exist. But one who, wishing to reprint an author's book, calls the author a monopolist for preventing him, stands in a widely different position. He proposes not simply to use his powers with the aid of such natural resources as are open to all. He proposes to use that which would not exist but for the author. It is, therefore, an utter misuse of the word to call the author's claim a monopoly. Moreover, those who so call it show the fallacy of their characterization by not daring to act upon it. Free trade makes no compromise with monopoly, rightly so-called. The free trader is ready to abolish monopoly at once, and makes no terms with it—sees no need for fostering it. Whereas those who take the position that copyright is a monopoly are obliged to admit that you must allow this so-called monopoly for a time. They dare not propose that the moment an author's book is published, any one should be allowed to reprint it; and they thus prove that they have not the courage of their opinions—do not really believe that which they profess to believe. On the other hand, I contend, as before, that freedom of trade is essentially freedom of contract, and that if authors, through their agents, are allowed to make what contracts they please with book-buyers, while the state stands by and enforces the contracts made, copyright necessarily comes into existence.

A REJOINDER TO MR. McLENNAN.

In Part III of the *Principles of Sociology*, dealing with "Domestic Institutions," I had occasion to criticize certain of the views set forth by Mr. McLennan in his *Primitive Marriage*. Sometime after, in two articles in *The Fortnightly Review*, the last of which appeared in June, 1877, he replied to my criticisms. To prevent prolongation of the controversy, the Editor of *The Fortnightly Review* sent me a proof of this last article; with the result that what I had to say in answer was appended. As Mr. McLennan's essays above named have, along with others, been put into a permanent form, it seems fit that permanence should be given to my response. The few pages occupied run as follows:—

Forms of family produced by descent in the male line, are habitually characterized by a law of succession which gives the sons of the eldest precedence over his brothers. Contrariwise, forms of family in which descent in the female line persists, wholly or partially, because paternity is unsettled or but partially settled, are characterized by a law of succession under which brothers takes precedence of sons. Hence an institution which requires a younger brother to beget an heir for an elder brother who dies without one, and which thus carries to an extreme the claims of sons *versus* the claims of brothers, seems like a result of a family system charac-

terized by established descent in the male line. Mr. McLennan, however, considers this peculiar institution to be derived from a form of family in which, from indefiniteness of paternity, male kinship in the descending line is imperfectly established. As he interprets the matter, cause and consequence stand thus:—"On every view, then," he says, "the succession of brothers in preference to sons must be accepted as a remainder of polyandry" (p. 705). Nevertheless he represents, as a remainder of polyandry, this Levirate system, which gives such preference to sons that even the nominal son of the eldest brother excludes a younger brother.

Though Mr. McLennan thinks "it is impossible not to believe" that this is the origin of the Levirate (*Studies in Ancient History*, p. 162), I have ventured to suggest another possible interpretation. I have shown that where women are bought and sold as property, they are also inherited as property. I have given six cases where widows are inherited by brothers who claim them as well as other belongings of the deceased; and have pointed out that in two of these instances, the nearest relation "had a right" to the widow, in the absence of a brother. As further showing how transfers of widows are originally transfers of property, I have given six cases in which sons inherit their father's wives (save their own mothers).* Here let me add other instances having like implications. Speaking of the Kakhyens, Anderson, in his *Mandalay to Momien* (pp. 139—142), says, "the curious custom obtains that a widow becomes the wife of the senior brother-in-law, even though he be already married. And Wood tells us of the Kirghiz, that on a

* *Principles of Sociology*, i, 680.

husband's death the wife goes to his brother, and on his decease becomes the property of the next of kin. We have, then, multitudinous proofs that the taking to wife deceased brothers' widows (not in these cases associated with polyandry, but with polygyny), is part of the succession to property in general; and this was originally the case among the Hebrews. The inference which Mr. McLennan draws from the ancient tradition concerning Tamar, does not correspond with the view which the Rabbins held respecting the original form of the Levir marriage. As shown by a passage in Lewis (*Origines Hebrœæ*, ii. 498), the Rabbins saw in Levir marriage, essentially a right of the brother, not of the widow. At first sight it is not manifest how what was originally a right of the brother, became transformed into a duty; but I have given some facts which throw light upon the transformation. Even among a people so little advanced as the Chippewas, the claim of a dead brother's wife as property, had so far changed that the assigned reason for marrying her was the obligation to take care of the brother's children; and I have cited the case of an Egyptian who said he married his brother's widow because "he considered it his duty to provide for her and her children." Following the clue given by these cases, I have suggested (*op. cit.* p. 692) that the duty of raising up seed to a dead brother was originally the duty of raising the seed the dead brother had left, that is, his children; and that this eventually passed by misinterpretation into the duty of preserving his line, not by rearing existing children, but by begetting a son in his name when he had none—a misinterpretation prompted by that intense craving to survive in name through future times, described in Psalm xlix. 11:—"Their inward thought is that their

houses shall continue for ever. . . . They call their lands after their own names." When we remember that even now, estates are sometimes bequeathed on condition of adopting the name of the testator, and so nominally maintaining the line, we shall understand the motive which exaggerated the duty of raising a brother's heir until it became the duty of raising an heir to him. Should Mr. McLennan contend that this transformation of what was once a beneficial right into an injurious obligation is improbable, then I make two replies. The first is, that among many remarkable social transformations, there may be named one immediately relating to marriage-customs, which presents us with a no less complete inversion. Change from wife-purchase to the reception of a dowry with a wife, does not seem a change likely to result by gradual transition; yet it did so result. The property given for the bride, originally appropriated entirely by the father, ceased in course of time to be wholly retained by him, and he gave part to his daughter for her special use after her marriage. What he gave to her grew, and what was paid for her dwindled, until eventually the husband's payment became a symbol, while the father's gift developed into a substantial dower. The second reply is that this transformation is less difficult to understand than the one alleged by Mr. McLennan. For according to him, the arrangement by which, in the polyandric family, an elder brother's death profits the next brother by devolving on him "his property, authority, and widow," is transformed into an arrangement by which, in the polygynic or monogamic family, the next brother loses by having to take steps for excluding himself from the succession.

The flaw in Mr. McLennan's argument appears to me

to be this. He tacitly assumes that the succession of brothers to property, instead of sons, always implies the pre-existence of polyandry; whereas it merely implies the pre-existence of descent in the female line, which may or may not have had polyandry as a concomitant. There are hosts of cases where descent in the female line exists, and where there is neither polyandry now nor any sign of its past existence.

In the small space available, I must meet Mr. McLennan's rejoinders to my criticisms on his theory of primitive marriage, in the briefest manner. He sets forth his leading propositions thus:—

(1.) That “the form [of capture] represents and is a remainder of an actual system of capturing women for wives.” As showing that the form does not necessarily imply capture from foreign tribes, I have pointed out that actual capture, and consequently the form of capture, may originate within the tribe; first, from the fighting of the men with one another for the possession of women; second, from the resistance of the pursued women themselves, due to coyness, partly real and partly assumed; third, from the accompanying resistance of sympathizing women; and fourth, from the resistance of parents who are deprived of the services of daughters by their marriages. I have given numerous examples of acts of capture having such origins, and these Mr. McLennan passes over unnoticed.

(2.) That “a practice of capturing women for wives could not have become systematic unless it were developed and sustained by some rule of law or custom, which made it necessary as a means to marriage.” This proposition implies that some “rule of law” was first estab-

lished, in some way unspecified, and that capturing women became systematic as a consequence; which is not a solution of the problem but a postponement of it. The assumed pre-existence of such a law seems to me akin to the hypothesis of a primitive "social contract."

(3.) That "the rule of law or custom which had this effect was exogamy, the law (previously unnamed) which declared it incest for a man to marry a woman of the same blood or stock with himself." On which my comment, simply a more specific form of the last, is that we are thus required to conclude that the notions of "blood or stock" and of "incest" preceded the practice of stealing women; though this practice, found among the very lowest men, is a natural sequence of instincts which must have been in action before the earliest social groups were formed.

From these general rejoinders I pass to more special ones.

Mr. McLennan says:—"In this inquiry it was the existence of exogamy as an essential concomitant of capture that concerned me. I neither investigated nor had occasion to investigate its origin." Considering that the title of Mr. McLennan's work as originally published was *Primitive Marriage: an Inquiry into the Origin of the Form of Capture in Marriage Ceremonies*, it seems strange that he should say he was not concerned with the explanation of exogamy. To ascribe capture to exogamy and to assign no cause for exogamy, is to give a very inadequate theory of primitive marriage. Mr. McLennan, however, while alleging that this problem did not concern him, says he threw out the suggestion that "practice of female infanticide" originated the correlative usages of capture and exogamy. I was quite un-

aware till now that Mr. McLennan laid so little stress upon this part of the theory. The title he gives to Chapter VII. of his work—"Exogamy: its Origin," &c., seems to imply that the explanation of it did concern him, though he now says it did not. In this chapter (pp. 110, 111, new edition), he assigns female infanticide as the cause, without any warning that this is to be taken merely as a suggestion. And to the growth of the consequent "usage induced by necessity" of stealing wives, he ascribes the "prejudice strong as a principle of religion . . . against marrying women of their own stock,"—ascribes, that is, the law of exogamy. I have given several reasons for concluding that exogamy did not arise from this cause; and, as Mr. McLennan now states that what he said about this cause had "perhaps better have been left unsaid," I presume that he admits the validity of these reasons.

Mr. McLennan makes a counter criticism on the explanation of exogamy given by me. This explanation is that in warlike tribes, capturing of a foreign woman, implying conquest over enemies, was a mark of bravery and therefore honourable; that as a tribe became predominantly warlike, the honourableness of having a foreign wife became so relatively great, that taking a native wife became discreditable; and that finally, in the most warlike tribes, it became imperative that a wife should be of foreign blood. Mr. McLennan objects that there is a gulf "between an act which is discreditable and an act which is criminal."

"To me," he says, "it seems simply not possible to deduce from marriages with foreign women being deemed ever so honourable, that marriages with native women should be branded as incestuous—be deemed

among the most impious of actions, and become capital offences."

My first reply is that though this "seems simply not possible" to Mr. McLennan, he might have found analogies which would show him its possibility. Is it not deemed honourable to conquer in war? Does it not become by consequence dishonourable to give way in battle and flee from the enemy? And are there not cases in which the dishonourableness of fleeing from the enemy became a penal offence, followed sometimes even by death? My second reply is that in the primitive state to which we must go back for the explanation of such practices as exogamy, no such notion as that of crime exists. Mr. McLennan's objection implies the belief that moral ideas antecede the earliest social state; whereas they are products of the social state, developing only as it advances. What we call crimes are thought creditable by many uncivilized men. Murder was no disgrace to a Fijian, but a glory; and his honour increased with the number of men he devoured. Among some tribes of the Pacific States, where the stronger man takes whatever he pleases from the weaker, the criminality of robbery is unrecognised. And by those many peoples whom I have instanced (*Prin. of Sociology*, vol. i, pp. 618-619) as very commonly forming incestuous unions, incest is not regarded as criminal. How, then, can there be the impassable gulf Mr. McLennan supposes between the disgracefulness of marrying within the tribe and the crime of incest, when, originally, incest was not a crime?

By way of proof that among rude races a man does not gain honour from a captured wife, Mr. McLennan gives some cases showing that captured wives are not

themselves held in higher estimation than native wives, but in lower. I have neither said nor implied anything at variance with his facts. To assert the honourableness of capturing is not to assert the honourableness of being captured.

One objection raised by Mr. McLennan to the explanation I have given has a considerable appearance of validity, and some real validity; though it is an imprudent objection for him to make, since it tells against his own view more than against mine. He points out that if, in an extremely warlike tribe, wiving with foreigners becomes imperative, and marriage with native-born women is disallowed, there arises the question, what becomes of the native-born women; and he says they must be “doomed to perpetual celibacy.” In answer, I may point to the fact alleged by Mr. McLennan himself (*Studies, &c.*, p. 112), that in some cases all the female children born within the tribe are destroyed, whence it follows that, in these cases at any rate, there results no such difficulty as that which he alleges. Further, I have to repeat the objection made by me to his hypothesis, that among a cluster of tribes practising primitive exogamy, as Mr. McLennan describes it, the female children born within each tribe not only become useless to the tribe, because unmarriageable by its members, but the rearing of them benefits and strengthens hostile tribes, who alone can utilize them: whence a motive to universal female infanticide throughout the tribes. But the truth to which Mr. McLennan’s objection points, I take to be this; that, save in such extreme cases as the one I have cited above, exogamy, under that primitive form which implies actual capture of women from other tribes, does not be-

come absolute; and that it acquires the character of a peremptory law, only when the prevalence of women counted as foreign by blood within the tribe, introduces the secondary or derived form of exogamy, and makes obedience to the peremptory law practicable.

Mr. McLennan alleges that the explanation I have given could account "only for a limited practice of capturing women for wives," and that for this reason, "apparently," I have formed the opinion that exogamy is not normal but exceptional. I do not know why he says this; since the explanation I have given implies that everywhere, hostilities among tribes tend to produce exogamy in some and endogamy in others, and that thus the simultaneous genesis of the two is normal. If, however, by the words "that exogamy, properly so-called, was normal, is beyond dispute," he means that it was normal in the literal sense, as having originally been the rule and other practices exceptions—if he means again to express the belief he did originally, that exogamy has "been practised at a certain stage among every race of mankind"—if, by the additional instances of it which he now gives, he means to support this proposition; then I have simply to set against it the admission he makes (*Studies, &c.*, p. 116) that exogamy and endogamy "may be equally archaic," and the statement that "the separate endogamous are nearly as numerous, and they are in some respects as rude, as the separate exogamous tribes" (*Ibid.*, p. 116)—an admission and a statement which harmonize perfectly with the hypothesis I have set forth, but are incongruous with Mr. McLennan's own hypothesis.

I have reserved to the last the most serious of Mr. McLennan's allegations against me. "That Mr. Spencer

has failed to grasp the meaning of the terms exogamy and endogamy appears beyond dispute," he says. If this be true, the fault must be either in Mr. McLennan's statement of his views, or in my capacity for comprehension; and I suppose that in politeness I am bound to regard the fault as lying in me. I am reluctant, however, to leave the reader without the opportunity of forming his own judgment on this point; and I therefore lay before him the data as briefly as consists with clearness.

The question being how there arose the contrast between those tribes which married only with women of other tribes, or of foreign blood, and those tribes which married native women, the words "exogamy" and "endogamy," introduced by Mr. McLennan, were used by me as indicating these two systems, alike in their partially-established and in their completely-established forms. Employing the words in these unspecialized senses, I have referred to some societies as partially exogamous or partially endogamous, and have said that "exogamy and endogamy in many cases co-exist:" meaning, thereby, that in so far as the men of a tribe marry out of the tribe the tribe is exogamous, and in so far as they marry within the tribe the tribe is endogamous. This fact is cited by Mr. McLennan as "*proof* that the problem never was comprehended by" me. Giving to the words more special meanings than are necessitated by their literal significations, Mr. McLennan represents them as applicable only where marriage with women of the same stock is respectively forbidden or required. There cannot, consequently, be such things as partial exogamy or endogamy—the two are mutually exclusive. "The words," he says, "were not defined by me

to denote practices at all, but *rules* or *laws*;" and he says that until there is actual prohibition of one or other, there is no law of marriage at all, and therefore no exogamy or endogamy.

Now Mr. McLennan may, of course, give what definitions he pleases to words introduced by himself. But I am at loss to understand how an evolutionist, which Mr. McLennan declares himself to be, can ignore those antecedent stages that must have been passed through before exogamy and endogamy could become laws. Mr. McLennan's familiarity with savage life must make him fully conscious that law, in our sense, is originally unknown; and that that genesis of laws out of customs which advanced societies show us, is implied by the state of the earliest societies in which no customs have yet evolved into laws. An evolutionist might be expected to regard it as a necessary implication that before exogamy and endogamy became laws they must have been practices.

If, instead of saying that I "never comprehended the meanings of the terms exogamy or endogamy," Mr. McLennan had said that I failed to comprehend how he reconciles his own uses of them with the meanings he gives, I should have agreed with him. On p. 230 in the chapter headed "Conclusion," (not, be it observed, in the chapter which he describes as "preliminary," and therefore only approximate in its statements) I find the following passage, in which I have italicised the significant words:

"On the whole, the account which we have given of the *origin of exogamy* appears the only one which will bear examination. The scarcity of women within the group led to a practice of stealing the women of other

groups, and *in time it came to be considered improper*, because it was unusual for a man to marry a woman of his own group."

This passage, summing up the results of Mr. McLennan's inquiries, while it tacitly asserts that "the origin of exogamy" was a chief problem (though Mr. McLennan now says it did not concern him), applies the name exogamy to a *practice* that had not yet become a *law*. Even now, on the first page of the above article, he uses it in the same sense when he speaks of his original suggestion thus—"the practice of capture somehow introducing exogamy, and exogamy thereafter perpetuating and extending the practice of capture." If, then, because I have applied the name exogamy to a growing custom that had not yet hardened into a law, I am charged with not understanding what exogamy means, I have simply to reply that the charge recoils with fatal effect on Mr. McLennan himself; since he uses the word in the same sense.

PROF. TAIT ON THE FORMULA OF EVOLUTION.

It would be undesirable to give permanence to the subjoined communication, published in *Nature* for Dec. 2, 1880, were it not that it serves as a text for some remarks on scientific culture and the perverting influences caused by limitation of it to special sciences.

Initiated by a criticism of *First Principles* in the *British Quarterly Review* for October, 1873, there grew

up a controversy carried on partly in pamphlets which I published and partly in the columns of *Nature*. In the course of it Prof. Tait, who, as a high authority, was quoted against me, became implicated and himself eventually entered the lists. Some time afterwards he uttered from his professorial chair at Edinburgh an address condemnatory of my views. It was published in *Nature* for Nov. 25, 1880, and drew from me the reply here reproduced.

Usually my polemical writings have, I believe, been considered as duly regardful of the feelings of antagonists. If an exception is here furnished, my excuse must be that I was, perhaps improperly, influenced by the example of Prof. Tait, who, repeating a comparison he made once before, told his students that—"When the purposely vague statements of the materialists and agnostics are thus stripped of the tinsel of highflown and unintelligible language, the eyes of the thoughtless who have accepted them on authority (!) are at last opened, and they are ready to exclaim with Titania 'Methinks I was enamour'd of an ass'."

When, in *Nature* for July 17th, 1879, while reviewing Sir Edmund Beckett's book, Prof. Tait lugged in Mr. Kirkman's travesty of the definition of Evolution, most readers probably failed to see why he made this not very relevant quotation. But those who remembered a controversy which occurred some years previously, possibly divined the feeling which prompted him thus to go out of his way.

At the time I said nothing; but having recently had to prepare a new edition of *First Principles*, and thinking it well to take some notice of books, and parts of books, that have been written in refutation of that work, I decided to deal also with Mr. Kirkman's implied criticism, in which Prof. Tait so heartily concurred; and by way of gauging Prof. Tait's judgment on this matter, I thought it not amiss to give some samples of his judgment on matters falling within his own department. To make it accessible to those possessing previous editions of *First Principles*, the Appendix containing these replies to critics was published as a pamphlet.

In the inaugural lecture of this session, recently given to his students, part of which is published in the last number of *Nature*, Prof. Tait first of all recalls a passage from the preceding controversy. From this he quotes, or rather describes, a clause which, standing by itself, appears sufficiently absurd; and he marks the absurdity by a double note of admiration. Whether when taken with its context it is absurd, the reader will be able to judge on reading the passage to which it belongs.

In disproof of certain conclusions of mine, there had been quoted against me the *dictum* of Prof. Tait concerning the laws of motion, which is that—"as the properties of matter might have been such as to render a totally different set of laws axiomatic, these laws must be considered as resting on convictions drawn from observation and experiment and not on intuitive perception." Not urging minor objections to this *dictum*, I went on to say—"It will suffice if I examine the nature of this proposition that 'the properties of matter *might have been*' other than they are. Does it express an ex-

perimentally-ascertained truth? If so, I invite Prof. Tait to describe the experiments? Is it an intuition? If so, then along with doubt of an intuitive belief concerning things *as they are*, there goes confidence in an intuitive belief concerning things *as they are not*. Is it an hypothesis? If so, the implication is that a cognition of which the negation is inconceivable (for an axiom is such) may be discredited by inference from that which is not a cognition at all, but simply a supposition. . . . I shall take it as unquestionable that nothing concluded can have a warrant higher than that from which it is concluded, though it may have a lower. Now the elements of the proposition before us are these:—As ‘the properties of matter might have been such as to render a totally different set of laws axiomatic’ [*therefore*] ‘these laws [now in force] must be considered as resting . . . not on intuitive perception:’ that is, the intuitions in which these laws are recognised, must not be held authoritative. Here the cognition posited as premiss, is that the properties of matter might have been other than they are; and the conclusion is that our intuitions relative to existing properties are uncertain. Hence, if this conclusion is valid, it is valid because the cognition or intuition respecting what might have been, is more trustworthy than the cognition or intuition respecting what is!”

From which it is manifest that, when asking (of course ironically) whether this alleged truth was an experimentally-ascertained one, my purpose was partly to enumerate and test all imaginable suppositions respecting the nature of Prof. Tait’s proposition, and partly to show that he had affirmed something concerning the properties of matter which cannot be experimentally

verified, and therefore which, by his own showing, he has no right to affirm.

The first example which, in my recent replies to criticisms, I have given of Prof. Tait's way of thinking, is disclosed by a comparison of his views concerning our knowledge of the universe as visible to us, and our knowledge of an alleged invisible universe. This comparison shows that:—

“He thinks that while no validity can be claimed for our judgments respecting perceived forces, save as experimentally justified, some validity can be claimed for our judgments respecting unperceived forces, where no experimental justification is possible.”

Part of Prof. Tait's answer is that “the theory there developed [in the *Unseen Universe*] was not put forward as probable, its purpose was attained when it was shown to be conceivable.”* To which I rejoin that whereas Prof. Tait said he found in this theory a support for certain theological beliefs, he now confesses that he found none; for if no probability is alleged, no support can be derived. The other part of his answer concerns the main issue. After pointing out that the argument of this work, “carried on in pursuance of physical laws established by converse with the universe we know, extends them to the universe we do not know,” I had urged that if we have “no warrant for asserting a physical axiom save as a generalisation of results of experiments—if, consequently, where no observation or experiment is possible, reasoning after physical methods can have no place; then there can be no basis for any conclusion respecting the physical relations of the seen and the unseen universes,” “since, by the definition of it, one term of the relation is absent.” Prof. Tait's ex-

planation is extremely startling. When following the discussion in the *Unseen Universe*, throughout which the law of the Conservation of Energy and the Principle of Continuity are extended from the tangible and visible matter and motion around us to an unknown form of existence with which they are supposed to be connected, readers little thought that Prof. Tait meant by this unknown form of existence his own mind. Yet this is all that he now names as the missing term of the relation between the seen universe and the unseen universe.

The second sample which I gave of Prof. Tait's views on matters pertaining to his own subject, concerned the nature of inertia, which he describes by implication as a positive force. Here I quoted Prof. Clerk Maxwell. To repeat his criticism in full would cause me to trespass on the pages of *Nature* even more unduly than I must do. If, however, any reader turns to *Nature*, July 3rd, 1879, and reads the passage in question, he will be able to judge whether it is, or is not, a joke, and if a joke, at whose expense. Meanwhile, the essential question remains. Prof. Tait says that matter has "an innate power of resisting external influences." I, contrariwise, say that the assertion of such a power is at variance with established physical principles.

One further illustration of Prof. Tait's way of thinking was added. Quoting from a lecture given by him at Glasgow, for the purpose of dispelling "the widespread ignorance as to some of the most important elementary principles of physics," I compared two different definitions of force it contained. In a passage from Newton, emphatically approved by Prof. Tait, force is implied to be that which changes the state of a body, or, in modern language, does work upon it. Later on in the lec-

ture, Prof. Tait says—"force is the rate at which an agent does work per unit of length." I contended that these definitions are irreconcilable with one another; and I do not see that Prof. Tait has done anything to reconcile them. True, he has given us some mathematics, by which he considers the reconciliation to be effected; and, possibly, some readers, awed by his equations, and forgetting that in symbolic operations, carried on no matter how rigourously, the worth of what comes out depends wholly on what is put in, will suppose that Prof. Tait must be right. If, however, his mathematics prove that while force is an agent which does work, it is also the rate at which an agent does work, then I say—so much the worse for his mathematics.

From these several tests of Prof. Tait's judgment, in respect to which I fail to see that he has disposed of my allegations, I pass now to his implied judgment on the formula, or definition, of Evolution. And here I have, first to ask him some questions. He says that because he has used the word "definition" instead of "formula," he has incurred my "sore displeasure and grave censure." In what place have I expressed or implied displeasure or censure in relation to this substitution of terms? Alleging that I have an obvious motive for calling it a "formula," he says I am "indignant at its being called a *definition*." I wish to see the words in which I have expressed my indignation; and shall be glad if Prof. Tait will quote them. He says—"It seems I should have called him the *discoverer of the formula!*!" instead of "the inventor of the definition." Will he oblige me by pointing out where I have used either the one phrase or the other? These assertions of Prof. Tait are to me utterly incomprehensible. I have nowhere

either said or implied any of the things which he here specifies. So far am I from consciously preferring one of these words to the other, that, until I read this passage in Prof. Tait's lecture, I did not even know that I was in the habit of saying "formula" rather than "definition." The whole of these statements are fictions, pure and absolute.

My intentional use of the one word rather than the other, is alleged by him *à propos* of an incidental comparison I have made. To a critic who had said that the formula or definition of Evolution "seems at best rather the blank form for a universe than anything corresponding to the actual world about us," I had replied that it might similarly be "remarked that the formula—'bodies attract one another directly as their masses and inversely as the squares of their distances,' was at best but a blank form for solar systems and sidereal clusters." Whereupon Prof. Tait assumes that I put the "Formula of Evolution alongside of the Law of Gravitation," in respect to the definiteness of the previsions they severally enable us to make; and he proceeds to twit me with inability to predict what will be the condition of Europe four years hence, as astronomers "predict the positions of known celestial bodies four years beforehand." Here we have another example of Prof. Tait's peculiarity of thought. Because two abstract generalisations are compared as both being utterly unlike the groups of concrete facts interpreted by them, *therefore* they are compared in respect to their other characters.

But now I am not unwilling to deal with the contrast Prof. Tait draws; and am prepared to show that when the conditions are analogous, the contrast disappears. It seems strange that I should have to point out to a sci-

tific man in his position, that an alleged law may be perfectly true, and that yet, where the elements of a problem to be dealt with under it are numerous, no specific deduction can be drawn. Does not Prof. Tait from time to time teach his students that in proportion as the number of factors concerned in the production of any phenomenon becomes great, and also in proportion as those factors admit of less exact measurement, any prediction made concerning the phenomenon becomes less definite; and that where the factors are multitudinous and not measurable, nothing but some general result can be foreseen, and often not even that? Prof. Tait ignores the fact that the positions of planets and satellites admit of definite prevision, only because the forces which appreciably affect them are few; and he ignores the fact that where further such forces, not easily measured, come into play, the previsions are imperfect and often wholly wrong, as in the case of comets; and he ignores the fact that where the number of bodies affecting one another by mutual gravitation is great, no definite prevision of their positions is possible. If Prof. Tait were living in one of the globular star-clusters, does he think that after observations duly taken, calculations based on the law of gravitation would enable him to predict the positions of the component stars four years hence? By an intelligence immeasurably transcending the human, with a mathematics to match, such prevision would doubtless be possible; but considered from the human standpoint, the law of gravitation even when uncomplicated by other laws, can yield under such conditions only general and not special results. And if Prof. Tait will deign to look into *First Principles*, which he apparently prides himself on not having done, he will there find a sufficient

number of illustrations showing that not only orders of changes, but even social changes, are predictable in respect to their general, if not in respect to their special, characters.

There remains only to notice the opinion which Prof. Tait seems still to hold, that the verbal transformation which Mr. Kirkman has made in the formula or definition of Evolution, suffices to show its hollowness. Here I may be excused for repeating what I have already said elsewhere, namely, that "We may conveniently observe the nature of Mr. Kirkman's belief, by listening to an imaginary addition to that address before the Literary and Philosophical Society of Liverpool, in which he first set forth the leading ideas of his volume; and we may fitly, in this imaginary addition, adopt the manner in which he delights.

"Observe, gentlemen," we may suppose him saying, "I have here the yolk of an egg. The evolutionists, using their jargon, say that one of its characters is 'homogeneity'; and if you do not examine your thoughts, perhaps you may think that the word conveys some idea. But now if I translate it into plain English, and say that one of the characters of this yolk is 'all-likeness,' you at once perceive how nonsensical is their statement. You see that the substance of the yolk is not all-alike, and that therefore all-likeness cannot be one of its attributes. Similarly with the other pretentious term 'heterogeneity,' which, according to them, describes the state things are brought to by what they call evolution. It is mere empty sound, as is manifest if I do but transform it, as I did the other, and say instead 'not-all-likeness.' For on showing you this chick into which the yolk of the egg turns, you will see that

‘not-all-alikeness’ is a character which cannot be claimed for it. How can any one say that the parts of the chick are not-all-alike? Again, in their blatant language we are told that evolution is carried on by continuous ‘differentiations’; and they would have us believe that this word expresses some fact. But if we put instead of it ‘somethingelseifications’ the delusion they try to practise on us becomes clear. How can they say that while the parts have been forming themselves the heart has been becoming something else than the stomach, and the leg something else than the wing, and the head something else than the tail? The like manifestly happens when for ‘integrations’ we read ‘sticktogetherations’; what sense the term might seem to have, becomes obvious nonsense when the substituted word is used. For nobody dares assert that the parts of the chick stick together any more than do the parts of the yolk. I need hardly show you that now when I take a portion of the yolk between my fingers and pull, and now when I take any part of the chick, as the leg, and pull, the first resists just as much as the last—the last does not stick together any more than the first; so that there has been no progress in ‘sticktogetherations.’ And thus, gentlemen, you perceive that these big words which, to the disgrace of the Royal Society, appear even in papers published by it, are mere empty bladders which these would-be philosophers use to buoy up their ridiculous doctrines.”

But though it is here, I think, made apparent enough that even when disguised in Mr. Kirkman’s grotesque words, the definition of Evolution continues truly to express the facts, Prof. Tait shows no sign of changing his original opinion that Mr. Kirkman has made “an

exquisite translation" of the definition. Nay, so charmed does he appear to be with Mr. Kirkman's feats of this nature, that he gives us another of them. One of two conclusions must be drawn. Prof. Tait either thinks that fallacies are disclosed by the aid of these cacophonous long words, or else the clatter of curious syllabic compounds greatly excites his sense of humour. In the last case we may infer that had he been one of that "Twelfth Night" party in which the Clown exclaims—"I did impetuos thy gratillity," he would have joined in Sir Andrew Aguecheek's applause.

In his essay on "The Study of Mathematics as an Exercise of the Mind," Sir William Hamilton insisted with great force upon the unfitness of mathematically-disciplined men for contingent reasoning: giving proof that "a too exclusive study of these sciences is, absolutely, to disqualify the mind for observation and common reasoning." In support of this thesis he marshalled numerous high authorities, including, along with various distinguished non-mathematicians, the mathematicians themselves—Pascal, Descartes, D'Alembert, and others. To earlier examples of mental defects produced, which might be given, a conspicuous addition has been supplied recently: that furnished by M. Michel Chasles, who, in the matter of the Newton-Pascal forgeries, surprised both the scientific world and the world at large by his extreme inability to judge of evidence and detect imposture. Personal experience has yielded verification. Observation of one much devoted to geometry forced on

me the conclusion that a prevailing fault in general reasoning had been produced in him. Such a result is not to be wondered at. The mathematician does not deal with many indefinite data, but with a few definite ones. In his operations there occurs no collecting of evidence: his successive inferences are inevitable implications. Balancing of probabilities is never thought of: his deductions are necessary and unqualified. The mode of thought generated affects his reasoning about other matters than the mathematical and the mathematico-physical. Assuming simplicity and definiteness of data where these do not exist, he draws conclusions which, as being drawn mathematically, he thinks unquestionable. A distinguished mathematician and physicist now living has more than once illustrated this truth.

A further mental effect is produced. The habit of dealing with conclusions from data that are few and exact, appears to entail an inability to recognize the conclusions drawn from inexact and complex data as constituting parts of scientific knowledge. In the minds of those thus characterized science exists as a multitude of separate demonstrated propositions; and it never occurs to them that in the order of Nature these must be parts of a whole. The merging of them in some universal truth is an idea so alien that the very terms required seem meaningless, and the man who uses them a charlatan. If, referring to an architect, a mason should say—"He a builder! Why he never dressed a stone in his life!" he would betray a feeling not altogether dis-

similar. Already in the appendix to *First Principles* above referred to, I have pointed out how some men of letters and some mathematicians, alike in having minds insufficiently supplied with the materials out of which the conception of Evolution is to be framed, regard the definition of Evolution as a combination of empty words: Prof. Tait and Mr. Kirkman being named in illustration. And I ought to have there added the illustration furnished by a Senior Wrangler who reviewed *First Principles* in the *British Quarterly Review* for October 1873, and with whom I subsequently carried on a controversy.

Since then two further illustrations have come to my knowledge. One is contained in the Life of the late Dr. Romanes. Writing to Mr. Darwin in 1880, and returning some letters, he says:—

“ The latter convey exactly the criticism that I should have expected from—, for while writing my essay on Theism I had several conversations with him upon the subject of Spencer’s writings, and so know exactly what he thinks of them. But in none of these conversations could I get at anything more definite than is conveyed by the returned letters. In no point of any importance did he make it clear to me that Spencer was wrong, and the only result of our conversation was to show me that in —’s opinion it was only my ignorance of mathematics that prevented me from seeing that Mr. Spencer is merely a ‘word philosopher’ . . .” (pp. 95—6).

The other illustration, of somewhat earlier date, will be found in the *Edinburgh Review* for January 1884.

The writer of it was among the wranglers of his year. His characterization of *First Principles* runs as follows:—"This is nothing but a *philosophy of epithets and phrases*, introduced and carried on with an unrivalled solemnity and affection of precision of style, concealing the loosest reasoning and the haziest indefiniteness." *

This instancing of five men, occupied with mathematics and mathematical physics, in whose minds the formula of Evolution raised no answering conception, may be thought to imply an undervaluation, if not even a reprobation, of mathematics and physics as subjects of study. No inference could be more erroneous. To guard against it, however, let me point out that while exclusive devotion to the exact sciences produces certain defects of thought, exclusive devotion to the inexact sciences produces defects of thought of an opposite kind. These last present phenomena under such complex forms, with interdependencies so involved, that necessities of relation cannot in most cases be said to exist; and the many causes simultaneously in operation so obscure the action of any one, as in large measure to exclude the idea of definite causation. Among plants a few funda-

* Some amusement was caused by the mode in which I dealt with this sweeping condemnation. It appeared just before the sixth edition of *First Principles* was issued. In pursuance of my directions, Messrs. Williams and Norgate, when sending out advertisements of this new edition, appended to each of them the above sentences, as expressing the opinion of the *Edinburgh Review*. The advertisements were published in all the leading daily and weekly papers.

mental relations may be fairly alleged, as between the monocotyledonous germination and the endogenous mode of growth, or between the dicotyledonous germination and the exogenous mode of growth. But relations among multitudinous combined traits, such as kind of fructification and possession of thorns, or hard-shelled nuts and shapes of leaves, cannot be shown to have any causal characters. So with animals. Though it is a trait of creatures having mammae to have seven cervical vertebræ, yet for this correlation of structures no necessity can be alleged; as is proved by the fact that though at one time the connexion was supposed to be universal, there have of late years been discovered mammals having eight vertebræ in the neck. Hence, those who exclusively study animals and plants, being perpetually impressed by connexions of facts which are either fortuitous or for which no reason can be assigned, are not daily habituated to the perception of causal relations, and such generalizations as they can establish come to be regarded as empirical. A purely inductive habit is encouraged and a deductive habit discouraged. The resulting mental tendencies operate in other regions of thought, so that everywhere necessity of relation is doubted, and the idea of inevitable consequence meets with no acceptance. Many times in a distinguished biologist I have observed the effect thus described. Present him with a great accumulation of evidence supporting a certain conclusion, and this conclusion, coming before him under the form of an induction, he would entertain

and seem ready to accept. After a time point out that this conclusion might be reached deductively from known necessary truths, and immediately his scepticism was aroused. Forgetting the inductive basis originally assigned, the deductive proof excited such repugnance as tended to make him reject what he before admitted. The habit of mind encouraged by dealing exclusively with empirical generalizations produced an abnormal distrust of all others.

Is it then that ability to form balanced judgments about things at large demands discipline in all the sciences? The answer is Yes and No. And here presents itself a question often raised and never settled—Is it better to have an extensive or fairly complete knowledge of a single science, or a general acquaintance with all the sciences? The tacit implication is that the choice is between restriction with accuracy and breadth with superficiality. But this is not true. The error lies in supposing that a general knowledge is the same thing as a superficial knowledge. There may be full comprehension of the essentials of a science without familiarity with its details—a clear understanding of those fundamental truths from which all the multitudinous minor truths constituting it are deductions. Take the case of mechanics. In a moderate time a student may master its cardinal ideas—the composition and resolution of forces; the general principle of inertia; the laws of motion, including acceleration and retardation and the various compoundings of motions, studied in connexion

with the conservation of energy; the doctrine of stable and unstable equilibrium, with the relations of statics and dynamics; and may add to these the theorems concerning the mechanical powers. The abstract truths comprehended under these heads having been severally brought home in connexion with some concrete applications, an adequate grasp of mechanical principles is obtained, which, though only general, is not superficial; and which gives the power intelligently to appreciate the higher and more complex conclusions of the science when upon occasion they are presented. Kindred courses may similarly bring within the student's clear comprehension the fundamentals of all the sciences; and he will then be in a condition for devoting himself efficiently to the science he prefers. Alike for the sake of knowledge and for the sake of discipline the ideal course of culture is—the ground truths of each science joined with mastery of one.

ABILITY *VERSUS* INFORMATION.

Among my papers I find in print the following letter written to Dr. (now Sir) Henry Acland. Under what circumstances it was written I do not know; nor can I remember in what shape it was published. Probably it formed part of some collection of opinions respecting University Education, issued in 1882: the date of it being March 4 of that year. I give it a place here as

expressing a strong conviction of mine concerning the quality of ordinary intellectual culture.

I am just now allowing myself, very imprudently, to be drawn away from my usual line of work, and am therefore the less able to consider at length the matter to which your letter of the 2nd draws my attention. Moreover, I feel that even had I any amount of energy to spare, my opinion upon the details of the proposed forms of examination would not be of much value.

There is only one general criticism which I feel inclined to make upon the examination papers you have forwarded—a criticism to which I think they are open in common with examination papers at large. They are drawn up with the exclusive view of testing *acquisition* rather than *power*. I hold that the more important thing to be ascertained by an examination is not the quantity of knowledge which a man has taken in and is able to pour out again, but the ability he shows to use the knowledge he has acquired; and I think that examinations of all kinds are habitually faulty, inasmuch as they use the first test rather than the last, by which to judge of superiority.

I hold that in every examination there should be a certain set of questions devised for the purpose of ascertaining what capacity for original thinking the candidate has—questions to which he will find no answer in the books that he has read, but to which answers must be elaborated by himself from reflection upon the knowledge he has acquired. To give an example of what I mean, there might be put to biological students in the physiological part of their examination such a question as—What are the other characteristics of the Aloe which

are related to the long delay in its flowering, and which make this delay profitable to the species? If some few questions of this kind, for which the student was wholly unprepared, were included in every examination, they would serve to single out the few men who were something more than mere passive recipients of book knowledge and professorial teaching.

BOOK-DISTRIBUTION.

When the late Mr. Fawcett was Postmaster-General I wrote to him a letter suggesting a system which would, it seemed to me, greatly facilitate (and therefore cheapen) the process of conveying books from publishers to readers. Nothing came of my proposal: the existing facilities were held sufficient. I think it well, however, to give permanence to the suggestion, hoping that some future Postmaster-General may take a different view. The date of the letter was June 5, 1882.

Thanks for your note some time since received, and for the copy of the *Postal Guide* drawing my attention to the postal order system. The unsatisfactoriness of this for the purpose I have in view is both that it involves a small tax and entails a considerable amount of clerical labour.

Within these last few days I have hit upon a device which, it seems to me, solves the problem satisfactorily; and on discussing the matter with Dr. William Smith, whose wide experience as a publisher of dictionaries

makes him a good judge of the commerce of literature, he agrees with me that it is practicable, and that immense benefits might be achieved by adopting it. I inclose a postcard showing the plan I propose. It is a supposed order for a book of my own. On the face it is, of course, addressed to the publisher. On the back the purchaser who wishes to have the book sent to him writes, as shown, the order, with his name and address. Below he affixes postage-stamps to the amount of the price: the space allowed being ample for the great majority of books if shilling stamps are used. He then scribbles over the affixed stamps so as to erase them and make them unavailable even should they be detached. All these acts he may, if he please, go through at the post-office where he may purchase both the postcard and the stamps; and write what he has to say at the counter where postal-orders, etc. are drawn. He then posts the card; and it goes along with other letters and cards, and is delivered to the publisher of the book. The publisher addresses the required book to him (and were the system established he would have a whole stock of copies wrapped up and stamped ready for addressing); and he does the like with numerous other orders for other books. One of his clerks then takes the postcards, perhaps 50 to 100, received that morning, writes down from each the amount it bears in stamps, and adds up the column of all these values, ascertaining the total due from the post-office. The clerk then takes the publisher's stamp, bearing the name of the firm, and impresses it on each of the cards, showing that it has passed through the publisher's establishment. Then at the same time that he sends his messenger with the books to the post-office, the publisher also sends all these cards and list of their values

to be handed in to the post-office clerk, who checks the list by the cards and having also checked the addition, gives it to some superior official to write out a cheque for the amount payable to the publisher.

The advantages achieved are these:—

1st. The book-purchaser, even if he goes himself to the post-office, has to go through no appreciably greater trouble than if he went to his retail bookseller and ordered the book; and if he has in his house postcards and stamps to the amount required, less trouble is entailed upon him; since he may send the postcard by his servant along with other letters to the post-office.

2nd. Neither by the servant of the purchaser, nor by a post-office clerk, nor by a letter-carrier can the stamps sent in payment be utilized, even if they could be detached by steaming or otherwise in such a manner as to be undamaged; for, being erased, they would be unavailable by anybody else. Being erased in the way shown they are of value only to the publisher to whom the card is addressed.

3rd. At the post-office where the card is posted no more trouble is entailed by it than by an ordinary letter; and the profit of the post-office in sending the order is provided for as it is in an ordinary letter or card.

4th. As the postcard thus bearing these stamps has to be stamped by the publisher to whom it is addressed before it can be exchanged at the post-office for its value, it is rendered unavailable by anyone else into whose hands it goes. The letter-carrier, even if dishonest, can make no use of it, seeing that he cannot get the use of the publisher's stamp. Only by forging the publisher's stamp would the card be rendered available by him; and then the danger of detection would be so great

that the thing could not be done. In the first place, the publisher's ordinary messenger being known at the post-office, the presentation of cards by anyone else would at once draw attention; and, in the second place, any such considerable abstraction of cards from those which daily came to the publisher as would be required to make the robbery worth while, would at once raise inquiry; since there would come in a few days letters to the publisher from those who had not received the books ordered, and a hue and cry would be raised. Forging the publisher's stamp, which could be the only mode of theft, would thus be extremely rare, if it ever occurred.

5th. Moreover, since the post-office would pay the publisher by cheque, which might be made payable to order, no person of the class of a letter-carrier or a post-office clerk would be able, if he did commit forgery, to get the money.

6th. The only work which this process of transmission would give to the post-office would be that of going through the number of postcards brought by the publisher's messenger, checking the list of the sums contained on them, and checking the addition. If this labour is divided over the whole number of cards, say from 50 to 100 brought at once, the amount of labour entailed by the transaction which each card represents is seen to be extremely small. To which add that against this amount of trouble given to the post-office there would be a countervailing economy. Under such a system the number of postcards delivered by each post to a publisher would be great; and since the chief cost of the postal system is in the delivery, the cost of delivery, when a great number of cards were taken at once by a letter-carrier to the publisher, would be, for each one of them,

greatly reduced. Obviously, the diminished cost of delivery for each card would more than compensate for the amount of trouble taken in checking and adding up the amounts. If a halfpenny for a postcard suffices to pay for the cost of delivery at present, then there would actually be, by multiplication of transactions, a profit, rather than a loss to the post-office.

7th. Further, it is to be borne in mind that the post-office would make its profit on the postage of the books ordered. If the amounts now charged for the transmission of books are adequate to cover the cost and leave a margin, then whatever multiplies such transactions profits the post-office; and therefore, if there were any unpaid trouble, entailed by these cards upon the post-office, it would be repaid by the profits on the books sent according to order.

8th. Should it, however, be held that the transaction must be made to bring positive, obvious profit, then this end might easily be achieved by the requirement that a halfpenny postage-stamp should be affixed on the post-card in addition to the printed stamp.

My anxiety to get some such system adopted is due to the fact, which I think I indicated when I had the pleasure of talking with you at Mr. Eustace Smith's, that an immense lowering of price in books might be achieved in this way, and a consequent immense extension in their diffusion. The present system of distribution through wholesale houses and retail booksellers is an absurd anachronism. It grew up under, and was appropriate to, the ancient system of communication by coaches and subsequently by railway parcels; but is altogether inappropriate to a time when the book-post furnishes a better system of distribution. The survival

of the old system is due to organized trade interests; and it immensely impedes the diffusion of books by paying for a labour which has become unnecessary. It is true that of late times the nominal prices of books are practically reduced by the discount of 2d. in the shilling, or even more by some retailers; but, in the first place, this does not prevent book-buyers from being often deterred from buying by reading in an advertisement the nominal price of a book, which they think too high to be afforded by them; and, in the second place, the reduction which these retailers make is nothing like as great as might be made if the labour of both wholesaler and retailer were done away with, as it ought now to be. Fully 40 per cent. of the published price of every book now goes to cover the cost of portage—the cost of transferring the book from the publisher to the reader. This 40 per cent. by no means represents the entire enhancement of the published price of the book. Prices of books would be lowered by much more than 40 per cent. if this existing system could be replaced in the way I have described. As you know, better than I do, it is a familiar truth, especially to economists, that any tax on a commodity raises its price by more than the amount of the tax; and this holds very obviously in the present case. Let the 40 per cent. be deducted from the advertised prices of books, and immediately the demand for them becomes immensely greater, probably double. The demand being doubled makes it possible to obtain an adequate return with a smaller profit on each copy to author and publisher; and therefore prompts a still further reduction in the price, and this again a still further distribution, acting and re-acting. So that I do not doubt that the prices of books would, by the adoption

of this system, be lowered by one half. As a further reason for this I should add that even the publisher could afford, setting aside the increase in his business, to lower his rate of profit on each copy; for the reason that his transactions would be much less costly. At present his business with wholesale and some retail houses entails a considerable amount of book-keeping, and a staff of clerks adapted to the labour. But in the system described the greater part of this book-keeping would disappear; the work of fulfilling the orders received would be purely mechanical; and a small staff of a lower capacity would suffice his needs, enabling him to diminish the rate of profit per copy he at present requires. Further, being prepaid, he would have to make no allowance for bad debts; and this would again diminish the needful rate of profit.

I may add that the great lowering in the price of books which would inevitably take place, would more especially tell upon the graver and higher priced books, which are now beyond the reach of the great mass of book-buyers.

M. DE LAVELEYE'S ERROR.

By way of introduction to this article nothing more is needed than to say that it was published in *The Contemporary Review* for April, 1885, under the title "A Rejoinder to M. de Laveleye." The misinterpretation he made of my political views is one very generally made, and these pages, which seek to exclude it, may therefore fitly have a permanent place.

The editor of the *Contemporary Review* having kindly allowed me to see a proof of the foregoing article by M. de Laveleye, and having assented to my request that I might be allowed to append a few explanations and comments, in place of a more formal reply in a future number of the Review, I have, in the following pages, set down as much as seems needful to prevent the grave misunderstandings likely to be produced by M. de Laveleye's criticisms, if they are permitted to pass unnoticed.

On the first page of his essay, M. de Laveleye, referring to the effort to establish "greater equality among men" by "appropriating State, or communal, revenues" for that end, writes—

"Mr. Spencer considers that this effort for the improvement of the condition of the working-classes, which is being everywhere made with greater or less energy, is a violation of natural laws, which will not fail to bring its own punishment on nations, thus misguided by a blind philanthropy" (p. 485).

As this sentence stands, and especially as joined with all which follows, it is calculated to produce the impression that I am opposed to measures "for the improvement of the condition of the working-classes." This is quite untrue, as numerous passages from my books would show. Two questions are involved—What are the measures? and—What is the agency for carrying them out? In the first place, there are various measures conducive to "improvement of the condition of the working-classes" which I have always contended, and still contend, devolve on public agencies, general and local—above all, an efficient administration of justice, by which

they benefit both directly and indirectly—an administration such as not simply represses violence and fraud, but promptly brings down a penalty on every one who trespasses against his neighbour, even by a nuisance. While contending for the diminution of State-action of the positively-regulative kind, I have contended for the increase of State-action of the negatively-regulative kind—that kind which restrains the activities of citizens within the limits imposed by the existence of other citizens who have like claims to carry on their activities. I have shown that “maladministration of justice raises, very considerably, the cost of living for all;”* and is, therefore, felt especially by the working-classes, whose state is most closely dependent on the cost of living. As one of the evils of over-legislation, I have, from the beginning, urged that, while multitudinous other questions absorb public attention, the justice-question gets scarcely any attention; and social life is everywhere vitiated by the consequent inequities.† While defending *laissez-faire* in its original and proper sense, I have pointed out that the policy of universal meddling has for its concomitant that vicious *laissez-faire* which leaves dishonesty to flourish at the expense of honesty.‡ In the second place, there are numerous other measures conducive to “the improvement of the condition of the working-classes” which I desire quite as much as M. de Laveleye to see undertaken; and simply differ from him concerning the agency by which they shall be undertaken. Without wishing to restrain philanthropic

* *Study of Sociology*, p. 384, postscript.

† See *Social Statics*: “The Duty of the State.” Also *Essays*, vol. iii. pp. 232 and 272.

‡ *Study of Sociology*, pp. 320-2.

action, but quite contrariwise, I have in various places argued that philanthropy will better achieve its ends by non-governmental means than by governmental means.* M. de Laveleye is much more familiar than I am with the facts showing that, in societies at large, the organized arrangements which carry on production and distribution have been evolved not only without State-help, but very generally in spite of State-hindrance; and hence I am surprised that he apparently gives no credence to the doctrine that, by private persons acting either individually or in combination, there may be better achieved multitudinous ends which it is the fashion to invoke State-agency for.

Speaking of the domain of individual liberty, M. de Laveleye says—

“ To be brief, I agree with Mr. Herbert Spencer that, contrary to Rousseau’s doctrine, State power ought to be limited, and that a domain should be reserved to individual liberty which should be always respected; but the limits of this domain should be fixed, not by the people, but by reason and science, keeping in view what is best for the public welfare ” (p. 488).

I am a good deal perplexed at finding the last clause of this sentence apparently addressed to me as though in opposition. *Social Statics* is a work mainly occupied with the endeavour to establish these limits by “ reason and science.” In the *Data of Ethics*, I have sought, in a chapter entitled the “ Sociological View,” to show how certain limits to individual liberty are deducible from the laws of life as carried on under social conditions. And in *The Man versus The State*, which M. de Laveleye

* *Social Statics*: “ Poor Laws.”

is more particularly dealing with, one part of the last chapter is devoted to showing, deductively, the derivation of what are called "natural rights" from the vital needs which each man has to satisfy by activities pursued in presence of other men who have to satisfy like needs; while another part of the chapter is devoted to showing, inductively, how recognition of natural rights began, in the earliest social groups, to be initiated by those retaliations which trespasses called forth—retaliations ever tending to produce respect for the proper limits of action. If M. de Laveleye does not consider this to be an establishment of limits "by reason and science," what are the kinds of "reason and science" by which he expects to establish them?

On another page M. de Laveleye says—

"I am of opinion that the State should make use of its legitimate powers of action for the establishment of greater equality among men, in proportion to their personal merits" (p. 489).

Merely observing that the expression "its legitimate powers of action" seems to imply a begging of the question, since the chief point in dispute is—What are "its legitimate powers of action?" I go on to express my surprise at such a sentence coming from a distinguished political economist. M. de Laveleye refers to the "old-fashioned political economy," implying that he is one of those younger economists who dissent from its doctrine; but I was quite unprepared to find that his dissent went so far as tacitly to deny that in the average of cases a proportioning of rewards to personal merits naturally takes place under the free play of supply and demand. Still less, after all the exposures made of the miseries inflicted on

men throughout the past by the blundering attempts of the State to adjust prices and wages, did I expect to see in a political economist such a revived confidence in the State as would commission it to adjust men's rewards "in proportion to their personal merits." I hear that there are some who contend that payment should be proportionate to the disagreeableness of the work done: the implication, I suppose, being that the knacker and the nightman should receive two or three guineas a day, while a physician's fee should be half-a-crown. But, with such a proportioning, I suspect that, as there would be no returns, adequate to repay the cost and time and labour of preparation for the practice of medicine, physicians would quickly disappear; as would, indeed, all those required for the higher social functions. I do not suppose that M. de Laveleye contemplates a proportioning just of this kind. But if in face of all experience, past and present, he trusts officialism to judge of "personal merits," he is sanguine to a degree which surprises me.

One of the questions which M. de Laveleye asks is—

"If the intervention of public power for the improvement of the condition of the working-classes be a contradiction of history, and a return to ancient militant society, how is it that the country in which the new industrial organization is the most developed—that is to say, England—is also the country where State intervention is the most rapidly increasing, and where opinion is at the same time pressing for these powers of interference to be still further extended?" (p. 491).

Several questions are here raised besides the chief one. I have already pointed out that my objection is not to "intervention of public power for the improvement of the condition of the working-classes," but to interven-

tions of certain kinds. The abolition of laws forbidding trade-combinations, and of laws forbidding the travelling of artisans, were surely measures which improved "the condition of the working-classes;" and these were measures which I should have been eager to join in obtaining. Similarly, at the present time I am desirous of seeing provided the easiest and most efficient remedies for sailors fraudulently betrayed into unseaworthy ships; and I heartily sympathize with those who denounce the continual encroachments of landowners—enclosures of commons and the turf-covered borders of lanes, &c. These, and kindred injustices to the working-classes, stretching far back, I am no less desirous to see remedied than is M. de Laveleye; provided always that due care is taken that other injustices are not committed in remedying them. Evidently, then, this expression of M. de Laveleye raises a false issue. Again, he says that I call this public intervention on behalf of the working-classes "a return to ancient militant society." This is quite a mistake. In ancient militant society the condition of the working-classes was very little cared for, and, indeed, scarcely thought of. My assertion was that the *coercive system* employed was like the coercive system employed in a militant society: the *ends* to which the systems are directed being quite different. But turning to the chief point in his question, I meet it by counter-questions—Why is it that the "new industrial organization" is best developed in England? and—Under what conditions was it developed? I need hardly point out to M. de Laveleye that the period during which industrial organization in England developed more rapidly and extensively than elsewhere, was a period during which the form of government was less coercive than elsewhere, and the indivi-

dual less interfered with than elsewhere. And if now, led by the admirers of Continental bureaucracies, eager philanthropists are more rapidly extending State-administrations here than they are being extended abroad, it is obviously because there is great scope for the further extension of them here, while abroad there is little scope for the further extension of them.

In justification of coercive methods for “improving the condition of the working-classes,” M. de Laveleye says—

“One fact is sufficient to show the great progress due to this State legislation: in an ever-increasing population, crime is rapidly and greatly diminishing” (p. 496).

Now, without dwelling on the fact, shown in Mr. Pike’s *History of Crime in England*, that “violence and lawlessness” had increased during the war period which ended at Waterloo; and without dwelling on the fact that, after the recovery from prostration produced by war, there was a diminution of crime along with that great diminution of coercive legislation which characterized the long period of peace; I go on to remark that a primary condition to the correct drawing of inferences is—other things equal. Does M. de Laveleye really think, when comparing the state of the last generation with that of the present, that other things are so equal that to the growth of State-administrations can be ascribed the decrease of crime? He ignores those two factors, far more important than all others, which have produced a social revolution—railways and free-trade: the last resulting from the abolition of govermental restraints after a long struggle, and the first effected by private enterprise carried out in spite of strenuous opposition for some time

made in the Legislature. Beyond all question, the prosperity due to these factors has greatly ameliorated the condition of the working-classes, and by so doing has diminished crime; for undoubtedly, diminishing the difficulties of getting food, diminishes one of the temptations to crime. If M. de Laveleye refers to a more recent diminution, then, unless he denies the alleged relation between drunkenness and crime, he must admit that the temperance agitation, with its pledges, its "Bands of Hope," and its "Blue Ribbon League," has had a good deal to do with it.

Before passing to the chief question let me correct M. de Laveleye on some minor points. He says—

"I think that the great fundamental error of Mr. Herbert Spencer's system, which is so generally accepted at the present day, consists in the belief that if State power were but sufficiently reduced," &c.

Now I set against this a sentence not long since published by Mr. Frederic Harrison:

"Mr. Spencer has himself just published . . . *The Man* versus *The State*, to which he hardly expects to make a convert except here and there, and about which an unfriendly critic might say that it might be entitled 'Mr. Spencer against all England.'" (*Nineteenth Century*, vol. xvi. p. 366.)

The fear lest my arguments should prevail, which I presume prompted M. de Laveleye's article, is evidently ill-founded. I wish I saw reason to believe that his estimate is nearer to the truth than the opposite one.

On p. 490, M. de Laveleye writes—

"The law that Mr. Herbert Spencer desires society

to adopt is simply Darwin's law—‘the survival of the fittest.’”

Perhaps I may be excused for wishing here to prevent further confirmation of a current error. In his article, M. de Laveleye has quoted from *Social Statics* passages showing insistence on the benefits resulting from survival of the fittest among mankind, as well as among animals; though he ignores the fact that the work as a whole is an elaborate statement of the conditions under which, and limits within which, the natural process of elimination of the unfit should be allowed to operate. Here my immediate purpose is to correct the impression which his statement, as above worded, produces, by naming the dates: *Social Statics* was published in 1851; Mr. Darwin's *Origin of Species* in 1859.

And now I pass to the main issue. In pursuance of his statement that I wish society to adopt the survival of the fittest as its guiding principle, M. de Laveleye goes on to describe what would be its action as applied to mankind. Here are his words.

“ This is the ideal order of things which, we are told, ought to prevail in human societies, but everything in our present organization (which economists, and even Mr. Spencer himself, admit, however, to be natural) is wholly opposed to any such conditions. An old and sickly lion captures a gazelle; his younger and stronger brother arrives, snatches away his prize, and lives to perpetuate the species; the old one dies in the struggle, or is starved to death. Such is the beneficent law of the ‘survival of the fittest.’ It was thus among barbarian tribes. But could such a law exist in our present social order? Certainly not! The rich man, feebly constituted and sickly, protected by the law, enjoys his wealth, marries and has offspring, and if an Apollo of herculean strength attempted to take from him his possessions,

or his wife, he would be thrown into prison, and were he to attempt to practise the Darwinian law of selection, he would certainly run a fair risk of the gallows" (p. 492).

Now though, on the next page, M. de Laveleye recognizes the fact that the survival of the fittest, as I construe it in its social applications, is the survival of the industrially superior and those who are fittest for the requirements of social life, yet, in the paragraph I have quoted, he implies that the view I hold would countenance violent methods of replacing the inferior by the superior. Unless he desires to suggest that I wish to see the principle operate among men as it operates among brutes, why did he write this paragraph? In the work before him, without referring to other works, he has abundant proof that, above all things, aggression of every kind is hateful to me; and he scarcely needs telling that from my earliest book, written more than a third of a century ago, down to the present time, I have urged the change of all laws which either inflict injustice or fail to remedy injustice, whether committed by one individual against another, or by class against class, or by people against people. Why, then, did M. de Laveleye make it seem that I would, if I could, establish a reign of injustice under its most brutal form? If there needs proof that in my view the struggle for existence as carried on in society, and the greater multiplication of those best fitted for the struggle, must be subject to rigorous limitations, I may quote as sufficient proof a passage from the *Data of Ethics*: premising that the word co-operation used in it, must be understood in its widest sense, as comprehending all those combined activities by which citizens carry on social life.

“ The leading traits of a code under which complete living through voluntary co-operation [here antithetically opposed to compulsory co-operation, characterizing the militant type of society] is secured, may be simply stated. The fundamental requirement is that the life-sustaining actions of each shall severally bring him the amounts and kinds of advantage naturally achieved by them; and this implies, firstly, that he shall suffer no direct aggressions on his person or property, and, secondly, that he shall suffer no indirect aggressions by breach of contract. Observance of these negative conditions to voluntary co-operation having facilitated life to the greatest extent by exchange of services under agreement, life is to be further facilitated by exchange of services beyond agreement: the highest life being reached only when, besides helping to complete one another’s lives by specified reciprocities of aid, men otherwise help to complete one another’s lives ” (p. 149).

This passage, indeed, raises in a convenient form the essential question. It will be observed that in it are specified two sets of conditions, by conforming to which men living together may achieve the greatest happiness. The first set of conditions is that which we comprehend under the general name *justice*; the second set of conditions is that which we comprehend under the general name *generosity*. The position of M. de Laveleye, and of the multitudes who think with him, is that the community, through its government, may rightly undertake both to administer justice and to practise generosity. On the other hand, I, and the few who think with me, contend that justice alone is to be administered by the community in its corporate capacity; and that the practice of generosity is to be left to private individuals, and voluntarily-formed combinations of individuals. Insuring each citizen’s safety in person and property, as

well as insuring him such returns for his services as his fellow-citizens agree to give, is a public affair; while affording him help, and giving him benefits beyond those he has earned, is a private affair. The reason for maintaining this distinction is that the last duty cannot be undertaken by the State without breach of the first. The vital requirement to social life must be broken that a non-vital requirement may be fulfilled. Under a reign of absolute justice unqualified by generosity, a social life may be carried on, though not the highest social life; but a reign of generosity without any justice—a system under which those who work are not paid, so that those who have been idle or drunken may be saved from misery—is fatal; and any approach to it is injurious. That only can be a wholesome state in which conduct brings its natural results, good or evil, as the case may be; and it is the business of Government, acting on behalf of all, to see that each citizen shall not be defrauded of the good results, and that he shall not shoulder off the evil results on to others. If others, in their private capacities, are prompted by affection or pity to mitigate the evil results, by all means let them do so: no power can equitably prevent them from making efforts, or giving money, to diminish the sufferings of the unfortunate and the inferior; at the same time that no power can equitably coerce them into doing this.

If M. de Laveleye holds, as he appears to do, that enforcing the normal relations between conduct and consequences, right as it may be in the abstract, is impracticable under existing social conditions, which are in many cases such that men get what they have neither earned nor otherwise equitably received, and in many cases such that they are prevented from earning any-

thing; then my reply is, by all means, where this condition of things is due to unjust arrangements, let us rectify these arrangements as fast as we can. But let us not adopt the disastrous policy of establishing new injustices for the purpose of mitigating the mischiefs produced by old injustices.

GOVERNMENT BY MINORITY.

The Irish party in 1885, under the leadership of Mr. Parnell, carried on an organized system of obstruction, the aim of which was to stop all legislation until Home Rule had been granted. The immediate question was that which exclusively occupied attention, but it seemed desirable to draw attention to a remoter question which was involved; and to this end I published the following letter in *The Times* for December 21, 1885.

Amid minor political issues occupying all minds the major political issue passes unnoticed.

The major political issue is—shall we maintain the supremacy of majorities? While in theory asserting it more emphatically than ever, we are in practice meanly relinquishing it. The very moment after we have extended the system of government by majority outside the House, we are tacitly allowing the system of government by minority inside the House. We are helplessly looking forward to the coercion of two great parties by one small party.

Right feeling alone, or moderate intelligence alone,

should have sufficed to make such a thing impossible, much more the two united. This impudent dictation by the few to the many might have been expected to rouse in the many a just anger, great enough to make them sink all party differences while jointly resisting it; and it might have been expected that Liberals and Conservatives alike, without any high stretch of intellect, would have seen that, deeper than any legislative question which divides them, is the question whether they shall allow the principle on which all our legislation is founded to be contemptuously broken through.

Thirty years ago Prince Albert gave great offence by saying that representative government was on its trial. We are now approaching a supreme moment when its trial threatens to end in lamentable failure. If this failure occurs—if the 584 allow themselves to be coerced by the 86—then the 584 will be traitors to free institutions.

EVOLUTIONARY ETHICS.

The following letter, published in the *Athenæum* for August 5, 1893, was drawn from me in response to certain passages in the Romanes Lecture, delivered by the late Prof. Huxley at Oxford in the Spring of 1893. These passages were supposed to be directed against doctrines I hold (see *Athenæum*, July 22, 1893); and it seemed needful that I should defend myself against an attack coming from one whose authority was so great. My justification for including this letter among these

fragments is that since the Romanes Lecture referred to exists in a permanent form, it is proper that a permanent form should be given to my reply.

If it is not too great a breach of your rules, will you allow me space for some remarks suggested by the review of Prof. Huxley's lecture on "Evolution and Ethics," contained in your issue of the 22nd inst.?

The incongruity between note 19 of the series appended to the lecture, and a leading doctrine contained in the lecture itself, is rightly pointed out by your reviewer. In the lecture Prof. Huxley says:—

"The practice of that which is ethically best—what we call goodness or virtue—involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence. In place of ruthless self-assertion it demands self-restraint."—P. 33.

But in note 19 he admits that—

"strictly speaking [why not rightly speaking?], social life and the ethical process, in virtue of which it advances towards perfection, are part and parcel of the general process of evolution, just as the gregarious habit of innumerable plants and animals, which has been of immense advantage to them, is so."

I do not see how the original assertion can survive after this admission has been made. Practically the last cancels the first. If the ethical process is a part of the process of evolution or cosmic process, then how can the two be put in opposition? Prof. Huxley says:—

"The struggle for existence, which has done such admirable work in cosmic nature, must, it appears [according to the view he opposes], be equally beneficent

in the ethical sphere. Yet, if that which I have insisted upon is true; if the cosmic process has no sort of relation to moral ends; if the imitation of it by man is inconsistent with the first principles of ethics; what becomes of this surprising theory?"—P. 34.

But when we find that the hypothetical statement, "if the cosmic process has no sort of relation to moral ends," is followed by the positive statement that "the cosmic process" *has* "a sort of relation to moral ends," we may ask, "what becomes of this surprising" criticism? Obviously, indeed, Prof. Huxley cannot avoid admitting that the ethical process, and, by implication, the ethical man, are products of the cosmic process. For if the ethical man is not a product of the cosmic process, what is he a product of?

The view of which Prof. Huxley admits the truth in note 19 is the view which I have perpetually enunciated: the difference being that instead of relegating it to an obscure note, I have made it a conspicuous component of the text. As far back as 1850, when I did not yet recognize evolution as a process co-extensive with the cosmos, but only as a process exhibited in man and in society, I contended that social progress is a result of "the ethical process," saying that—

"the ultimate man will be one whose private requirements coincide with public ones. He will be that manner of man who, in spontaneously fulfilling his own nature incidentally performs the functions of a social unit; and yet is only enabled so to fulfil his own nature, by all others doing the like."—*Social Statics*, "General Considerations."

And from that time onwards I have, in various ways, insisted upon this truth. In a chapter of the *Principles*

of *Ethics* entitled "Altruism *versus* Egoism," it is contended that from the dawn of life altruism of a kind (parental altruism) has been as essential as egoism; and that in the associated state the function of altruism becomes wider, and the importance of it greater, in proportion as the civilization becomes higher. Moreover, I have said that—

"from the laws of life it must be concluded that unceasing social discipline will so mould human nature, that eventually sympathetic pleasures will be spontaneously pursued to the fullest extent advantageous to each and all."—*Ethics*, § 95.

"With the highest type of human life, there will come also a state in which egoism and altruism are so conciliated that the one merges in the other."—*Ib.*, appended chapter to Part I.

Everywhere it is asserted that the process of adaptation (which, in its direct and indirect forms, is a part of the cosmic process) must continuously tend (under peaceful conditions) to produce a type of society and a type of individual in which "the instincts of savagery in civilized men" will be not only "curbed," but repressed. And I believe that in few, if any, writings will be found as unceasing a denunciation of that brute form of the struggle for existence which has been going on between societies, and which, though in early times a cause of progress, is now becoming a cause of retrogression. No one has so often insisted that "the ethical process" is hindered by the cowardly conquests of bullet and shell over arrow and assegai, which demoralize the one side while slaughtering the other.

And here, while referring to the rebarbarizing effects of the struggle for existence carried on by brute force,

let me say that I am glad to have Prof. Huxley's endorsement of the proposition that the survival of the fittest is not always the survival of the best. Twenty years ago, in an essay entitled "Mr. Martineau on Evolution," I pointed out that "the fittest" throughout a wide range of cases—perhaps the widest range—are not the "best"; and said that I had chosen the expression "survival of the fittest" rather than the survival of the best because the latter phrase did not cover the facts.

Chiefly, however, I wish to point out the radical misconceptions which are current concerning that form of evolutionary ethics with which I am identified. In the preface to *The Data of Ethics*, when first published separately, I remarked that by treating the whole subject in parts, which would by many be read as though they were wholes, I had "given abundant opportunity for misrepresentation." The opportunity has not been lost. The division treating of "Justice" has been habitually spoken of as though nothing more was intended to be said; and this notwithstanding warnings which the division itself contains, as in § 257, and again in § 270; where it is said that "other injunctions which ethics has to utter do not here concern us . . . there are the demands and restraints included under Negative Beneficence and Positive Beneficence, to be hereafter treated of." Even if considered apart, however, the doctrine set forth in this division has no such interpretation as that perversely put upon it. It is represented as nothing but an assertion of the claims of the individual to what benefits he can gain in the struggle for existence; whereas it is in far larger measure a specification of the equitable limits to his activities, and of the restraints which must be imposed on him. I am not aware that any one has more emphatic-

ally asserted that society in its corporate capacity must exercise a rigorous control over its individual members, to the extent needful for preventing trespasses one upon another. No one has more frequently or strongly denounced governments for the laxity with which they fulfil this duty. So far from being, as some have alleged, an advocacy of the claims of the strong against the weak, it is much more an insistence that the weak shall be guarded against the strong, so that they may suffer no greater evils than their relative weakness itself involves. And no one has more vehemently condemned that “miserable laissez-faire which calmly looks on while men ruin themselves in trying to enforce by law their equitable claims” *Ethics*, § 271).

Now that the remaining parts, treating of Beneficence, have been added to the rest, the perverse misinterpretation continues in face of direct disproofs. At the very outset of the *Ethics* it is said:—

“There remains a further advance not yet even hinted. For beyond so behaving that each achieves his ends without preventing others from achieving their ends, the members of a society may give mutual help in the achievement of ends.”—§6.

And in a subsequent chapter it is said that

“the limit of evolution of conduct is consequently not reached until, beyond avoidance of direct and indirect injuries to others, there are spontaneous efforts to further the welfare of others.” “It may be shown that the form of nature which thus to justice adds beneficence, is one which adaptation to the **social** state produces.”—§ 54.

These are texts which in Parts V. and VI., dealing with Beneficence, Negative and Positive, are fully expanded.

Having first distinguished between “kinds of altruism,” and contended that the kind we call justice has to be enforced by the incorporated society, the State, while the kind we call beneficence must be left to individuals, and after pointing out the grave evils which result if this distinction is not maintained, I have described in detail the limits to men’s actions which negative beneficence enjoins. Then come two chapters, entitled “Restraints on Free Competition” and “Restraints on Free Contract,” respectively indicating various cases in which the restraints imposed by law must be supplemented by self-restraints, and instancing one of the excesses committed under free competition as amounting to “commercial murder.” Chapters enjoining further self-restraints for the benefit of others are followed, in the division on Positive Beneficence, by chapters enjoining efforts on their behalf, and the duty which falls on the superior of mitigating the evils which the inferior have to bear. After dealing, in a chapter on “Relief of the Poor,” with the evils often caused by attempts to diminish distress, it is contended that philanthropic duty should be performed not by proxy, but directly; and that each person of means ought to see to the welfare of the particular cluster of inferiors with whom his circumstances put him in relation. The general nature of the doctrine set forth may be inferred from two sentences in the closing chapter:—

“The highest beneficence is that which is not only prepared, if need be, to sacrifice egoistic pleasures, but is also prepared, if need be, to sacrifice altruistic pleasures.”—§ 474.

And then, speaking of the natures which “the ethical process” is in course of producing, it is said that

"in such natures a large part of the mental life must result from participation in the mental lives of others."
—§ 475.

I do not see how there could be expressed ideas more diametrically opposed to that brutal individualism which some persons ascribe to me.

It remains only to say that Prof. Huxley's attack upon the doctrines of Ravachol & Co. has my hearty approval, though I do not quite see the need for it. Evidently it is intended for the extreme anarchists; or, at least, I know of no others against whom his arguments tell. It has been absurdly supposed that his lecture was, in part, an indirect criticism upon theories held by me. But this cannot be. It is scarcely supposable that he deliberately undertook to teach me my own doctrines, enunciated some of them forty-odd years ago. Passing over the historical and metaphysical parts of his lecture, his theses are those for which I have always contended. We agree that the process of evolution must reach a limit, after which a reverse change must begin (*First Principles*, chaps. "Equilibration" and "Dissolution"). We agree that the survival of the fittest is often not survival of the best. We agree in denouncing the brutal form of the struggle for existence. We agree that the ethical process is a part of the process of evolution. We agree that the struggle for life needs to be qualified when the gregarious state is entered, and that among gregarious creatures lower than man a rudiment of the ethical check is visible. We agree that among men the ethical check, becoming more and more peremptory, has to be enforced by the society in its corporate capacity, the State. We agree that beyond that qualification of the

struggle for life which consists in restricting the activities of each so that he may not trench upon the spheres for the like activities of others, which we call justice, there needs that further qualification which we call beneficence; and we differ only respecting the agency by which the beneficence should be exercised. We agree in emphasizing, as a duty, the effort to mitigate the evils which the struggle for existence in the social state entails; and how complete is this agreement may be seen on observing that the sentiment contained in Prof. Huxley's closing lines is identical with the sentiment contained in the last paragraph of the *Principles of Ethics*. Obviously, then, it is impossible that Prof. Huxley can have meant to place the ethical views he holds in opposition to the ethical views I hold; and it is the more obviously impossible because, for a fortnight before his lecture, Prof. Huxley had in his hands the volumes containing the above quotations, along with multitudinous passages of kindred meanings. But as this erroneous belief is prevalent, it seems needful for me to dissipate it. Hence this letter.

The closing lines of this last paragraph were regarded by Prof. Huxley as tacitly charging him with an unacknowledged adoption of my views. It did not occur to me when writing them that they could be so interpreted. My intention was simply to show that he had abundant opportunity for seeing at first hand what my views were, and had therefore the less reason for presenting his own similar views as though they stood in opposition to mine.

SOCIAL EVOLUTION AND SOCIAL DUTY.

It is quite by accident that this fragment succeeds the last in order of date, and when it was written the last was not in my thoughts. The sequence, however, is fortunate. Its cardinal idea is similar to that contained in my reply to Prof. Cairnes already given; but as it is differently presented, and as it is one which many find it difficult to grasp, it seems desirable to repeat it in this recast form. A Congress of Evolutionists was held at Chicago on Sept. 28, 29 and 30, 1893; and this brief paper was sent in response to a request to contribute to its proceedings.

At a congress which has for its chief purpose to advance ethics and politics by diffusing evolutionary ideas it seems especially needful to dissipate a current misconception respecting the relation in which we stand individually towards the process of social evolution. Errors of a certain class may be grouped as errors of the uncultured, but there are errors of another class which characterize the cultured—implying, as they do, a large amount of knowledge with a good deal of thought but yet with thought not commensurate with the knowledge. The errors I refer to are of this class.

The conception of evolution at large, as it exists in those who are aware that evolution includes much more than “natural selection,” involves the belief that from

beginning to end it goes on irresistibly and unconsciously. The concentration of nebulae into stars and the formation of solar systems are determined entirely by certain properties of the matter previously diffused. Planets which were once gaseous, then liquid, and finally covered by their crusts, gradually undergo geological transformations in virtue of mechanical and chemical processes.

Similarly, too, when we pass to organic bodies, plant and animal. Enabled to develop individually, as they are, by environing forces, and enabled to develop as species by processes which continue to adapt and readapt them to their changing environments, they are made to fit themselves to their respective lives and, along certain lines, to reach higher lives, purely by the involved play of forces of which they are unconscious. The conception of evolution at large, thus far correct, is by some extended to that highest form of evolution exhibited in societies. It is supposed that societies, too, passively evolve apart from any conscious agency; and the inference is that, according to the evolutionary doctrine, it is needless for individuals to have any care about progress, since progress will take care of itself. Hence the assertion that “evolution erected into the paramount law of man’s moral and social life becomes a paralyzing and immoral fatalism.”

Here comes the error. Everyone may see that throughout the lower forms of evolution the process goes on only because the various units concerned—molecules of matter in some cases, and members of a species in another—respectively manifest their natures. It would be absurd to expect that inorganic evolution would continue if molecules ceased to attract or combine, and it

would be absurd to suppose that organic evolution would continue if the instincts and appetites of individuals of each species were wholly or even partially suspended.

No less absurd is it to expect that social evolution will go on apart from the normal activities, bodily and mental, of the component individuals—apart from their desires and sentiments, and those actions which they prompt. It is true that much social evolution is achieved without any intention on the part of citizens to achieve it, and even without the consciousness that they are achieving it. The entire industrial organization in all its marvelous complexity, has arisen from the pursuit by each person of his own interests, subject to certain restraints imposed by the incorporated society; and by this same spontaneous action have arisen also the multitudinous appliances of industry, science and art, from flint knives up to automatic printing machines, from sledges up to locomotives—a fact which might teach politicians that there are at work far more potent social agencies than those which they control.

But now observe that just as these astonishing results of social evolution, under one of its aspects, could never have arisen if men's egoistic activities had been absent, so in the absence of their altruistic activities there could never have arisen and cannot further arise certain higher results of social evolution. Just as the egoistic feelings are the needful factors in the one case, so the altruistic feelings are the needful factors in the other, and whoever supposes the theory of evolution to imply that advanced forms of social life will be reached even if the sympathetic promptings of individuals cease to operate, does not understand what the theory is.

A simple analogy will make the matter clear. All

admit that we have certain desires which insure the maintenance of the race—that the instincts which prompt to the marital relation and afterwards subserve the parental relation make it certain that, without any injunction or compulsion, each generation will produce the next. Now suppose some one argued that since, in the order of nature, continuance of the species was thus provided for, no one need do anything towards furthering the process by marrying. What should we think of his logic—what should we think of his expectation that the effect would be produced when the causes of it were suspended?

Yet absurd as he would be, he could not be more absurd than the one who supposed that the higher phases of social evolution would come without the activity of those sympathetic feelings in men which are the factors of them—or rather, he would not be more absurd than one who supposed that this is implied by the doctrine of evolution.

The error results from failing to see that the citizen has to regard himself at once subjectively and objectively—subjectively as possessing sympathetic sentiments (which are themselves the products of evolution); objectively as one among many social units having like sentiments, by the combined operation of which certain social effects are produced. He has to look on himself individually as a being moved by emotions which prompt philanthropic actions, while, as a member of society, he has to look on himself as an agent through whom these emotions work out improvements in social life. So far, then, is the theory of evolution from implying a “paralyzing and immoral fatalism,” it implies that, for genesis of the highest social type and production of the greatest general happiness, altruistic activities are essential

as well as egoistic activities, and that a due share in them is obligatory upon each citizen.

PARLIAMENTARY GEORGITES.

While the Parish Councils Bill was before Parliament, I made the following comment, under the title of "Parliamentary Georgites" on the general character of its provisions, which was published in *The Times* for February 20, 1894. I had long wished to express the opinion that the great majority of Englishmen, abandoning as they have done the teachings of political economists and those who a generation ago had diffused rational ideas concerning the State and its functions, are politically drunk; and I here seized the occasion for indicating this opinion by signing this letter—"One who is still sober."

How Mr. Henry George must chuckle as he reads about the doings of the English House of Commons! To think that already he should have obtained the majority of that assemblage as converts to his leading doctrine!

To his leading doctrine? Well, if not to the doctrine, yet to the method by which he proposes to carry out the doctrine. "We must not turn the landlords out, we must tax them out," has been his injunction for years past, and our legislators are obeying his injunction.

From the time when the compound householder came into existence it has become manifest *à posteriori*,

as it was manifest *à priori*, that giving public power to men without imposing on them public burdens leads to extravagance and injustice. Under municipal governments, practically elected by non-ratepayers (for these can turn the scale), lavish expenditure, rising rates, and the piling up of vast debts have proceeded with increasing rapidity. Under rural governments, similarly elected, are we not to expect similar results?

“Trust the people,” they say. Certainly, trust the people to do that which human beings in general do—follow their own ends. When “the classes” were predominant it was rightly complained that they dealt unjustly with “the masses.” Now that “the masses” are predominant, will they not deal unjustly with “the classes”? If the first were biased by their interests, will not the second also be biased by their interests? And what will be their interests? To get as many benefits as possible given to them out of public funds to which they do not contribute—do not consciously contribute.

Doubtless Mr. Henry George knows that before the Revolution one-fourth of France was made valueless by the weight of taxation and became waste. Probably he knows, too, that under our old Poor Law the rates had in some parishes risen to half the rental, and that in one Buckinghamshire parish they had absorbed the whole proceeds of the soil—owners’ rents, occupiers’ profits—and that the rector, having given up his glebe and tithes, proposed that all the land should be divided among the paupers.

Perhaps Mr. George will infer that, if this could happen when the rate-eaters had no power of levying rates, far more readily will it happen when those who get gratis benefits from rates will have part power and often

the chief power of levying rates. And if he infers this, we may imagine the sardonic grin with which he watches some hundreds of propertied representatives complacently smoothing the way for the Socialists.

There are moral epidemics as well as physical epidemics; and the moral influence, or influenza, which now prevails so widely has a symptom in common with its physical analogue—it is accompanied by nervous prostration. Those seized by it are smitten with paralysis of reason. For how else can we account for the astounding fact that, day by day, the selectmen of the nation are empowering those who own nothing to say to those who own something, “We will decide what shall be done, and you shall pay for it.” Actually it has come to this—that “collective wisdom” thinks society will prosper under that principle!

A RECORD OF LEGISLATION.

The project described in the following letter, which appeared in *The Times* for Nov. 24, 1894, is one I had long entertained; and the incident referred to in its opening paragraph prompted me no longer to delay setting it forth.

The attention which has been drawn to Mr. Ilbert’s proposal for a record of comparative legislation suggests to me the propriety of naming a project akin to it towards the execution of which a small step has been made.

The project I refer to was originally conceived as a kind of supplement to the “Descriptive Sociology” (or

rather to one division of it), and might eventually have been entered upon had not the heavy losses year by year entailed on me by that compilation obliged me to discontinue it. The end in view was to present briefly, in a tabulated form, the contents of our Statute-book from early days onwards, showing why each law was enacted, the effects produced, the duration, and, if repealed, the reasons for the repeal; the general purpose being that of making easily accessible the past experience useful for present guidance. The scheme in its developed form included like tabulations of the laws of other nations, which, while making comparisons possible, would enable us to profit by other legislative experiments than those of our ancestors. There was, however, no thought of dealing in like manner with the legislation of the English-speaking races at large.

In 1887 a tentative step was taken towards execution of this scheme. There existed at that time a weekly publication entitled *Jus*, established and edited by Mr. Wordsworth Donisthorpe, and partly devoted to the exposure of mischievous law-making. In pursuance of a suggestion which he says I made to him in 1873, he commenced giving instalments of such a digest as that described above; and these instalments were continued from September, 1887, to March, 1888, when the death of the periodical brought them to a close.

A further step was subsequently taken. Between two and three years ago I named the project to a philanthropic millionaire, and the interest he displayed in it led me to think that he would furnish funds for carrying it out. That he might be able to decide, however, it was needful that a finished portion of such a digest should be produced, and, in consultation with Mr. Donis-

thorpe, a final form of table was agreed upon. Prompted by the expectation raised, Mr. Donisthorpe enlisted in the cause Mr. J. C. Spence, by whose labours, aided by his own, a table was duly prepared, put in type, and printed. As is shown by the enclosed copy of this printed table, its parallel columns, severally filled up, are headed:—"Reasons for the Enactment"; "Provisions of Enactment"; "Date and Title"; "Effects"; "Repeal." The period dealt with extended from 1328 to 1349; and the table showed that nearly all the laws passed have been repealed.

To complete the conception of the scheme it should be added that along with the whole series of tables, thus sampled, there was to be a subject-index, so classified into divisions and sub-divisions of matters dealt with by law, that by reference to any particular division or sub-division, and then to the pages named as containing the laws relating to it, it would be possible in a few minutes to learn what has been attempted in successive centuries in respect of any particular matter and with what results.

Unfortunately, however, when this sample table was put before my millionaire friend he expressed the opinion that he could devote his surplus revenues to purposes of more importance. The project thus dropped and nothing further has since been done.

I am fully conscious that no such compilation could be made complete. Doubtless numerous Acts dealing with trivial matters would have to be omitted to prevent undue voluminousness; and it is certain that in many cases the effects produced by Acts could not be definitely stated; though in these cases the mere fact of repeal would often have sufficient significance. But it is not,

therefore, to be concluded that an undertaking of this kind, imperfectly executed though it might be, should not be carried out as far as possible. It is true that politicians and legislators who plume themselves on being "practical," and whose facts are furnished by Blue-books and Parliamentary Debates, would probably pay but small respect to these groups of facts furnished by the legislative experiments of our forefathers. Experiences of the day satisfy them. But those who take wider views and see that generalizations drawn from the entire past life of a nation are more to be trusted than these superficial generalizations, and that it is folly to make laws without inquiring what have been the results of essentially similar laws long ago passed and long ago abandoned, will see that such a work, containing easily accessible information, might have considerable effect in preventing some of the legislative blunders which are daily made.

It is more for the purpose of putting this project on record than with the hope that it may be executed in our day that I write this letter. The ambitions which now prevail among the wealthy, and in fulfilment of which they spend large sums, may hereafter be replaced by ambitions of a higher kind, and then the needful funds may be forthcoming.

In a leading article commenting on this letter, which appeared simultaneously, it was objected that it would be impracticable to ascertain the good or evil effects of past laws and the reasons why they had been repealed. Doubtless in many cases ascertainment would be difficult and even impossible. But if, as a general rule, the

effects of laws cannot be ascertained, then it becomes impossible to distinguish between good and bad laws; and if laws cannot be classed as good or bad by their ascertained effects, then one law is as good as another and legislation becomes meaningless. Even without pressing this logical implication it may be replied that we ought to know what things have been attempted by laws and in what cases repeal soon followed or enforcement was found impracticable.

In the hope that hereafter some man or men of adequate means will see that such a record, partially if not wholly practicable, would be of high value, I here append the sample table above referred to as having been arranged and filled up.

ANGLO-AMERICAN ARBITRATION.

On March 3, 1896, a short time before official steps were taken towards the establishment of permanent International Arbitration with the United States, a demonstration in furtherance of that end was held at Queen's Hall, Sir James Stansfeld in the chair. In response to an appeal I sent the following letter, which was read at the meeting.

Were it not that ill-health obliges me to shun all excitements, I should gladly attend the meeting to be held this evening at Queen's-hall in support of Anglo-

REASONS FOR THE ENACTMENT.	PROVISIONS OF ENACTMENT.	DATE AND TITLE.	EFFECTS.	REPEAL.
<i>a</i> The Staples being found a hindrance to trade:	The Staples are abolished: all merchants, native and foreign, are to be free to come and go, to buy and sell when and where they choose.	1328. 2 Edw. III., st. 1, c. 9.	Though a great relief to the public, and especially to merchants, the Act struck a heavy blow at the King's revenue, the Customs being evaded.	Repealed in fact in 1332 by the re-establishment of the Staples. Specifically repealed in 1363.
<i>b</i> The Public being deemed incapable of seeing that they got good measure:	The length of every cloth of ray to be measured by the King's aulnagers, 28 yards long by the list by six quarters wide. Coloured cloths 26 yards long by six and a half quarters wide. Measuring to be done without soiling the cloth. All cloths of defective measure to be forfeit to the King.	Do., c. 14.	Led to much oppression by officials. "Divers merchants, as well foreigners as denizens," ceased to bring cloths to market "to the great damage of the King and all his people." Petition, dated 1353, charges the aulnagers with corruption.	The forfeiture clause repealed in 1353. The whole Act repealed by 49 Geo. III., c. 109.
<i>c</i> At the instance of the Retail Shopkeepers who were injured by the Competition of the Fairs:	All fairs limited to the time that they "ought" to be open. Merchants selling after such time to be grievously punished. Lords permitting such extension of time to forfeit the tolls to the King.	Do., c. 15.	No effect whatever, by reason of the penalties on merchants not being defined.	Amended by 5 Edw. III., st. 1, c. 5.
<i>d</i> The Public being plundered by the King's Purveyors and Takers, in spite of previous Statutes:	None but takers for the Royal Family to take anything from anyone. Those of the Royal house to pay a fair price, to be fixed by the constable and other good men of the district. They are to provide themselves with a warrant under seal. Any one taking without warrant to be treated as a common thief.	1330. 4 Edw. III., st. 1, c. 3, and c. 4.	Absolutely ineffectual.	Re-enacted and amended the following year. Repealed 1363.
<i>e</i> Former Statutes prohibiting religious persons from carrying valuable across the seas, having been disregarded:	It is ordained that said Statutes shall in future be kept at all points.	Do., c. 6.	The law continues to be disregarded. (See 5 Edw. III., st. 1, c. 3.)	Rep. 44 & 55 Vic., c. 59, s. 3.
<i>f</i> Boat Fares having been raised:	Passage across the Channel from Dover is to be two shillings for a horseman and sixpence for a footman, as formerly. In other places the fares are to be as in the old time, and no more.	Do., c. 8.	Effect can only be conjectured, bearing in mind the depreciation of the coinage. The new groat (4d) weighed 3d.	Do.
<i>g</i> Taverns increase in number, and sell wines good and bad at such price as they will, to the great hurt of the people:	No one to sell wine but at a reasonable price. All wines to be officially tested twice a year at least. Bad wines to be poured out and the vessels broken.	Do., c. 12.	William of Malmesbury says that Gloucester wine was little inferior to the wines of France; but after these stringent regulations, little more is heard of English Wines or vine-yards.	Do.
<i>h</i> Former Statutes having failed to protect the Public from the Oppression of the King's Purveyors:	They are re-enacted: but all inquests under them are to be held by the local justices, and not by officers of the King's house.	1331. 5 Edw. III., st. 1, c. 2.	No effect. (See 10 Edw. III., st. 2.)	1363.
<i>i</i> Former Statutes having failed utterly:	It is again enacted that religious men do make no carriage across the seas.	Do., c. 3.	No effect: is again and again re-enacted.	1363.
<i>j</i> The Statute of Fairs having omitted to define penalties:	Merchants selling before or after proper time of fairs to forfeit to the King double the value of goods sold. Informers to get half.	Do., c. 5.	The fairs in themselves did not hurt the shopkeepers, but the monopoly whereby the shops in the neighbourhood were shut up during the fair for the increase of the King's tolls and dues. (See Matthew Paris.)	Do.
<i>k</i> Arbitrary monopolies having been established in some cities and towns to the hurt of the people:	All merchants, native and foreign, to be free to sell anything anywhere at any time to anyone. No foreigner to carry wine out of the country. No one to tax or take from a foreign merchant, King's Customs excepted.	1335. 9 Edw. III., st. 1, c. 1.	This had the effect of diminishing the <i>import</i> of wine and <i>raising</i> its price, the very reverse of its object.	1363.
<i>l</i> To keep bad money out of the kingdom, and to increase the supply of good money:	No one to carry gold or silver in coin or any other form out of the country without special license. Bad money imported to be forfeited. No coin to be melted, on pain of forfeiting one-half. The black money current is to be utterly excluded from circulation. Merchants and shippers to be sworn to keep the law. Exchanges to be set up at Dover and other places, and Wardens to be appointed to fix rates of exchange. No pilgrims to pass out of England except to Dover, on pain of a year's imprisonment. Innkeepers entitled to demand gold and silver every port, and to have a quarter the forfeit incurred for contravention of the Act.	Do., st. 2, c. 1 to c. 11 (the whole statute).	The money was remitted by bills of exchange, so that, although the Act to some extent prevented the export of the precious metals, to precisely that same extent it prevented their import. Innkeepers preferred their customers to the forfeit.	Rep. by 2 & 3 Will. IV., c. 34, s. 1 Forfeit due to innkeepers raised from a fourth to a third by 17 Edw. III., 9 v.
<i>m</i> To repress the malice of the King's Purveyors. (See former Acts dealing with this evil):	Purveyance of horses to be made only through the Sheriffs of Counties. But to this Statute a footnote is appended: "Howbeit this is holden to be no Statute, as it appears by the Rolls."	1336. 10 Edw. III., st. 2.	Openly set aside by the King.	Re-enacted 14 Edw. III., st. 1, c. 19. 1363.
<i>n</i> To protect Home Cloth Manufacture:	Owning (taking wool out of the realm) made a capital offence. ¹ Royal Family allowed to wear only but home-made cloth, on pain of forfeiture and further punishment. No foreigner to be imported. ² Only Royal Family, prelates, and titled persons to wear foreign cloth. Foreign cloth-workers free to reside in England under the King's special protection.	11 Edw. III., st. 1, c. 1.	Knyghton (contemp.) says, Wool lay unsold for years and growers were reduced to the greatest distress. Many Flemings accepted the invitation and founded the fine wool industries here.	19 & 20 Vic., c. 64. ¹ Rep. as to foreigners the following year. ² Rep. 14 Edw. III., st. 3.
<i>o</i> To establish Uniform System of Weights and Measures:	The Treasury to send standard weights and measures to every county. Inspectors to be appointed in each county, with power to punish offenders. Informers to take quarter forfeit.	1340. 14 Edw. III., st. 1.	Dead letter. Commissioners "performed their official duties with a very unpopular degree of severity." Partly Report, 1810.	1363. Commissions abolished by 18 Edw. III., st. 1. Amended 21 Edw. III., 11.
<i>p</i> To put down Usury, on behalf of borrowers:	The Ecclesiastical Courts to have cognizance of usurers, to censure them for their sins, and to compel restitution.	1341. 15 Edw. III., st. 1, c. 5.	Increased the interest on loans by increasing the risk of the lender.	Rep. by 2 & 3 Will. IV., c. 92, as to jurisdiction.
<i>q</i> The great Pestilence and the French Wars having raised the value of labour, and at the same time impoverished the propertied classes:	Everyone under forty, not in trade nor having property, may be compelled by anyone to serve at the wages paid in the 20th year of the reign; the Lords to be compelled to serve at the same rate. Refusal to serve or to quit their employment to be imprisoned. Persons paying higher wages to forfeit double; persons receiving it to be imprisoned. Persons selling food at unreasonable prices to forfeit double. If Mayors or Sheriffs neglect to enforce the penalties, the Justices are to compel them to pay treble the value. Anyone giving anything to a beggar to be imprisoned.	1340. 23 Edw. III., st. 1.	The preamble to 23 Edw. III., st. 2, states that this ordinance was preamble by all persons concerned, more especially the servants, who regarded only "their own ease and singular covetise."	Re-enacted several times, but always inoperative, was finally repealed in 1363.

American arbitration. As it is, I can do no more than emphatically express approval of its aims.

Savage as have been the passions commonly causing war, and great as have been its horrors, it has, throughout the past, achieved certain immense benefits. From it has resulted the predominance and spread of the most powerful races. Beginning with primitive tribes it has welded together small groups into larger groups, and again at later stages has welded these larger groups into still larger, until nations have been formed. At the same time military discipline has habituated wild men to the bearing of restraints, and has initiated that system of graduated subordination under which all social life is carried on. But though, along with detestation of the cruelties and bloodshed and brutalization accompanying war, we must recognize these great incidental benefits bequeathed by it heretofore, we are shown that henceforth there can arise no such ultimate good to be set against its enormous evils. Powerful types of men now possess the world; great aggregates of them have been consolidated; societies have been organized; and throughout the future the conflicts of nations, entailing on larger scales than ever before death, devastation, and misery, can yield to posterity no compensating advantages. Henceforth social progress is to be achieved, not by systems of education, not by the preaching of this or that religion, not by insistence on a humane creed daily repeated and daily disregarded, but only by cessation from these antagonisms which keep alive the brutal elements of human nature, and by persistence in a peaceful life which gives unchecked play to the sympathies. In sundry places, and in various ways, I have sought to show that advance to higher forms of man and society

essentially depends on the decline of militancy and the growth of industrialism. This I hold to be a political truth in comparison with which all other political truths are insignificant.

I need scarcely add that such being my belief, I rejoice over the taking of any step which directly diminishes the probability of war, and indirectly opens the way to further such steps.

AGAINST THE METRIC SYSTEM.

During the Parliamentary Session of 1896 an association which has for some time past sought to establish the Metric System in England, had obtained from the Parliamentary Secretary of the Board of Trade, a promise that a Bill conforming to their desire should be presently introduced. Holding strongly the opinion that adoption of the Metric System is undesirable, I published in *The Times*, as special articles "From a Correspondent," four letters setting forth the reasons for this opinion; and immediately afterwards issued these letters in the form of a pamphlet, which was distributed to all members of the House of Commons and a few members of the House of Lords here, and also to members of the United States Congress, before which a Bill to establish the Metric System in America was pending. The contents of this pamphlet, including certain explanatory lines introducing the letters, are now reproduced.

On the 20th inst., in answer to a question, Mr. Balfour implied that the Government did not contemplate compulsory enactment of the metric system. At that date this pamphlet was in the press, and I was at first inclined to stay further progress; thinking that issue of it would be superfluous. Second thoughts, however, led to persistence.

On the 24th March, at the Annual Meeting of the Associated Chambers of Commerce, a motion urging adoption of the metric system was carried; and the Earl of Dudley, Parliamentary Secretary of the Board of Trade, responding to its embodied wish, announced that "a Bill was now in course of preparation which would be brought in at no distant date, and which would give effect to the wishes expressed in the motion." The provisions of such a Bill should it be brought forward, will be subject to criticisms irrespective of their characters as compulsory or permissive. Hence it seems still desirable to bring together, in a convenient form for reference, the facts and arguments which go to show that the metric system is ill-adapted for industrial and trading purposes.

Of the four following letters, the first, which discusses the claims of the English yard *versus* the French mètre, may be passed over by those who have little time for reading, since it does not essentially concern the main issue.

I.—Advocates of the metric system allege that all opposition to it results from "ignorant prejudice." This is far from being the fact. There are strong grounds for rational opposition, special and general; some already assigned and others which remain to be assigned. I may

fitly put first a carefully-reasoned expression of dissent from a late man of science of high authority.

In 1863 Sir John Herschel published an essay in which, after referring to an attempt made during the preceding Session to carry through Parliament a Bill establishing the French metric system in this country, and anticipating that the Bill (said to have been confirmed in principle) would be again brought forward, he proceeded to contrast that system with a better one to be reached by making a minute modification in our own unit of measure. The following extract will sufficiently indicate the line of his argument:—

“ Let us now see how far the French mètre as it stands fulfils the requirements of scientific and ideal perfection. It professes to be the 10,000,000th part of the quadrant of the meridian passing through France from Dunkirk to Formentera, and is, therefore, scientifically speaking, a local and national and not a universal measure . . . The mètre, as represented by the material standard adopted as its representative, is too short by a sensible and measurable quantity, though one which certainly might be easily corrected.”

[In the appendix it is shown that according to the latest measurements the error is 1-163rd part of an inch on the mètre.]

Sir John goes on to say that “ were the question an open one what standard a new nation, unprovided with one and unfettered by usages of any sort, should select, there could be no hesitation as to its adoption (with that very slight correction above pointed out) ”; and he then continues—

“ The question now arising is quite another thing, viz.:— Whether we are to throw overboard an existing, estab-

lished, and, so to speak, ingrained system—adopt the mètre as it stands for our standard—adopt, moreover, its decimal subdivisions, and carry out the change into all its train of consequences, to the rejection of our entire system of weights, measures, and coins. If we adopt the mètre we cannot stop short of this. It would be a standing reproach and anomaly—a change for changing's sake. The change, if we make it, must be complete and thorough. And this, in the face of the fact that England is beyond all question the nation whose commercial relations, both internal and external, are the greatest in the world, and that the British system of measures is received and used, not only throughout the whole British Empire (for the Indian 'Hath' or revenue standard is defined by law to be 18 British Imperial inches), but throughout the whole North American continent, and (so far as the measure of length is concerned) also throughout the Russian Empire. . . . Taking commerce, population, and area of soil then into account, there would seem to be far better reason for our Continental neighbours to conform to our linear unit could it advance the same or a better *a priori* claim, than for the move to come from our side. (I say nothing at present of decimalization.) ”

Sir John Herschel then argues that the 10,000,000th part of the quadrant of a meridian, which is the specified length of the mètre, is, on the face of it, not a good unit of measure, inasmuch as it refers to a natural dimension not of the simplest kind, and he continues thus:—

“ Taking the polar axis of the earth as the best unit of dimension which the terrestrial spheroid affords (a better *a priori* unit than that of the metrical system), we have seen that it consists of 41,708,088 imperial feet, which, reduced to inches, is 500,497,056 imperial inches. Now this differs only by 2,944 inches, or by 82 yards, from 500,500,000 such inches, and this would be the whole

error on a length of 8,000 miles, which would arise from the adoption of this precise round number of inches for its length, or from making the inch, so defined, our fundamental unit of length.

After pointing out that the calculation required for correlating a dimension so stated with the Earth's axis, is shorter than that required for correlating a kindred dimension with the quadrant of a meridian, Sir John Herschel argues that—

“ If we are to legislate at all on the subject, then the enactment ought to be to increase our present standard yard (and, of course, all its multiples and submultiples) by one precise thousandth part of their present lengths, and we should then be in possession of a system of linear measure the purest and the most ideally perfect imaginable. The change, so far as relates to any practical transaction, commercial, engineering, or architectural, would be absolutely unfelt, as there is no contract for work even on the largest scale, and no question of ordinary mercantile profit or loss, in which one *per mille* in measure or in coin would create the smallest difficulty.”

“ Hitherto I have said nothing about our weights and measures of capacity. Now, as they stand at present, nothing can be more clumsy and awkward than the numerical connection between these and our unit of length.”

And then, after pointing out the way in which the slight modification of the unit of linear measure described by him, could be readily brought into such relation with the measures of capacity and weight as to regularize them, he goes on:—

“ And thus the change which would place our system of linear measure on a perfectly faultless basis would, at the same time, rescue our weights and measures of capacity from their present utter confusion.”

In presence of the opinion thus expressed, and thus supported by evidence, we ought, I think, to hear nothing more about "ignorant prejudice" as the only ground for opposition to the metric system, now being urged upon us. But, before proceeding to give adverse reasons of my own, let me quote a further objection—not, it may be, of the gravest kind, but one which must be taken into account. Writing from Washington, Professor H. A. Hazen, of the United States Weather Bureau, published in *Nature* of January 2, this year, a letter of which the following extracts convey the essential points:—

"The metric system usually carries with it the Centigrade scale on the thermometer, and here the whole English-speaking world should give no uncertain sound. In meteorology it would be difficult to find a worse scale than the Centigrade. The plea that we must have just 100° between the freezing and boiling points does not hold; any convenient number of degrees would do. The Centigrade degree ($1^{\circ}.8f.$) is just twice too large for ordinary studies. The worst difficulty, however, is in the use of the Centigrade scale below freezing. Any one who has had to study figures half of which have *minus* signs before them knows the amount of labour involved. To average a column of 30 figures half of which are *minus* takes nearly double the time that figures all on one side would take, and the liability to error is more than twice as great. I have found scores of errors in foreign publications where the Centigrade scale was employed, all due to this most inconvenient *minus* sign. If any one ever gets a 'bee in his bonnet' on this subject and desires to make the change on general principles it is very much to be hoped that he will write down a column of 30 figures half below 32° F., then convert them to the Centigrade scale, and try to average them. I am sure no English meteorologist who has ever used the Centigrade scale will ever desire to touch it."

But, now having noted these defects, which may perhaps be considered defects of detail, since they do not touch the fundamental principle of the metric system, I propose, with your permission, to show that its fundamental principle is essentially imperfect and that its faults are great and incurable.

II.—In reply to my enquiries, a French friend, member of the Conseil d'État, after giving instances of nonconformity to the metric system, ended by saying:—“En adoptant le système métrique décimal, on n'a pas fait disparaître tout à fait les dénominations anciennes, mais on en a fortement réduit l'emploi.”

It is now more than a century since, in the midst of the French revolution, the metric system was established. Adoption of it has been in the main compulsory. As French citizens have been obliged to use francs and centimes, so must they have been obliged to use the State-authorized weights and measures. But the implication of the above statement is that the old customs have survived where survival was possible: the people can still talk in sous and ask for fourths, and they do so. Doubtless “ignorant prejudice” will be assigned as the cause for this. But one might have thought that, after three generations, daily use of the new system would have entailed entire disappearance of the old, had it been in all respects better.

Allied evidence exists. While in the land of its origin the triumph of the metric system is still incomplete, in one of the lands of its partial adoption, the United States, the system has been departed from. It will be admitted that men engaged in active business are, by their experience, rendered the best judges of convenience in mone-

tary transactions; and it will be admitted that a Stock Exchange is, above all places, the focus of business where facilitation is most important. Well, what has happened on the New York Stock Exchange? Are the quotations of prices in dollars, tenths, and cents? Not at all. They are in dollars, halves, quarters, eighths; and the list of prices in American securities in England shows that on the English Stock Exchange quotations are not only in quarters and eighths, but in sixteenths and even thirty-seconds. That is to say, the decimal divisions of the dollar are in both countries absolutely ignored, and the division into parts produced by halving, re-halving, and again halving is adopted. Worse has happened. A friend writes:—"When I was in California some 20 years ago the ordinary usage was to give prices in 'bits,' the eighth of a dollar—a 'long bit' was 15 cents, a 'short bit' was 10 cents. If one had a long bit and paid it one got no change—if one gave a short one no supplement was asked." Thus, lack of appropriate divisibility led to inexact payments—a retrogression.

Perhaps an imaginary dialogue will most conveniently bring out the various reasons for dissent. Let us suppose that one who is urging adoption of the metric system, is put under cross-examination by a sceptical official. Some of his questions might run thus:—

What do you propose to do with the circle? At present it is divided into 360 degrees, each degree into 60 minutes, and each minute into 60 seconds. I suppose you would divide it into 100 degrees, each degree into 100 minutes, and each of these into 100 seconds?

The French have decimalized the quadrant, but I fear their division will not be adopted. Astronomical observations throughout a long past have been registered

by the existing mode of measurement, and works for nautical guidance are based upon it. It would be impracticable to alter this arrangement.

You are right. The arrangement was practically dictated by Nature. The division of the circle was the outcome of the Chaldean division of the heavens to fit their calendar: a degree being, within 1-60th, equivalent to a day's apparent motion of the Sun on the ecliptic. And that reminds me that I do not find in your scheme any proposal for re-division of the year. Why do you not make 10 months instead of 12?

A partial decimalization of the calendar was attempted at the time of the French Revolution: a week of ten days was appointed, but the plan failed. Of course, the 365 days of the year do not admit of division into tenths; or if ten months were made, there could be no tenths of these. Moreover, even were it otherwise, certain deeply-rooted customs stand in the way. Many trading transactions, especially the letting of houses and the hiring of assistants, have brought the quarter-year into such constant use that it would be very difficult to introduce a re-division of the year into tenths.

Just so; and it occurs to me that there is a deeper reason. Ignoring the slight ellipticity of the Earth's orbit, a quarter of a year is the period in which the Earth describes a fourth of its annual journey round the Sun, and the seasons are thus determined—the interval between the shortest day and the vernal equinox, between that and the longest day, and so on with the other divisions.

The order of Nature is doubtless against us here.

It is against you here in a double way. Not only the behaviour of the Earth, but also the behaviour of the

Moon conflicts with your scheme. By an astronomical accident it happens that there are 12 full moons, or approximately 12 synodic lunations, in the year; and this, first recognized by the Chaldeans, originated the 12-month calendar, which civilized peoples in general have adopted after compromising the disagreements in one or other way. But there is another division of time in which you are not so obviously thus restrained. You have not, so far as I see, proposed to substitute 10 hours for 12, or to make the day and night 20 hours instead of 24. Why not?

Centuries ago it might have been practicable to do this; but now that time-keepers have become universal we could not make such a re-division. We might get all the church-clocks altered, but people would refuse to replace their old watches by new ones.

I fancy conservatism will be too strong for you in another case—that of the compass. The divisions of this are, like many other sets of divisions, made by halving and re-halving and again halving, until 32 points are obtained. Is it that the habits of sailors are so fixed as to make hopeless the adoption of decimal divisions?

Another reason has prevented—the natural relations of the cardinal points. The intervals included between them are necessarily four right angles, and this precludes a division into tenths.

Exactly. Here, as before, Nature is against you. The quadrant results from space-relations which are unchangeable and necessarily impose, in this as in other cases, division into quarters. Nature's lead has been followed by mankind in various ways. Beyond the quarter of a year we have the moon's four quarters. The quarter of an hour is a familiar division, and so is the quarter

of a mile. Then there are the quartern loaf, and the quarter of a hundredweight. Though the yard is divided into feet and inches, yet in every draper's shop yards are measured out in halves, quarters, eighths, and sixteenths or nails. Then we have a wine merchant's quarter-cask, we have the fourth of a gallon or quart, and, beyond that, we have for wine and beer, the quarter of a quart, or half-pint.

Even that does not end the quartering of measures, for at the bar of a tavern quarterns of gin, that is quarter-pints of gin, are sold. Evidently we must have quarters. What do you do about them? Ten will not divide by four.

The Americans have quarter dollars.

And are inconsistent in having them. Just as in France, notwithstanding the metric system, they speak of a quarter of a litre, and a quarter of a livre, so in the United States, they divide the dollar into quarters, and in so doing depart from the professed mode of division in the very act of adopting it—depart in a double way. For the tenths of the dollar play but an inconspicuous part. They do not quote prices in dollars and dimes: I continually see books advertised at 25c., 75c., \$1.25c., \$1.75c., and so forth; but I do not see any advertised at \$1.3 dimes or 4 dimes, &c. So that while not practically using the division theoretically appointed, they use the division theoretically ignored.

It may be somewhat inconsistent, but there is no practical inconvenience.

I beg your pardon. If they had a 12-division of the dollar, instead of a 10-division, these prices \$1.25 and \$1.75 would be \$1..3 and \$1..9. And not only would there be a saving in speech, writing, and printing, but

there would be a saving in calculation. Only one column of figures would need adding up where now there are two to add up; and, besides decreased time and trouble, there would be fewer mistakes. But leaving this case of the dollar, let us pass to other cases. Are we in all weights, all measures of length, all areas and volumes, to have no quarters?

Quarters can always be marked as .25.

So that in our trading transactions of every kind we are to make this familiar quantity, a quarter, by taking two-tenths and five-hundredths! But now let me ask a further question—What about thirds? In our daily life division by three often occurs. Not uncommonly there are three persons to whom equal shares of property have to be given. Then in talk about wills of intestates one hears of widows' thirds; and in Acts of Parliament the two-thirds majority often figures. Occasionally a buyer will say—"A half is more than I want and a quarter is not enough; I will take a third." Frequently, too, of medicines, where half a grain is too much or not enough, one-third of a grain or two-thirds of a grain is ordered. Continually thirds are wanted. How do you arrange? Three threes do not make ten.

We cannot make a complete third.

You mean we must use a make-shift third, as a make-shift quarter is to be used?

No; unfortunately that cannot be done. We signify a third by .3333, &c.

That is to say, you make a third by taking 3 tenths, *plus* 3 hundredths, *plus* 3 thousandths, *plus* 3 ten-thousandths, and so on to infinity!

Doubtless the method is unsatisfactory, but we can do no better.

Nevertheless you really think it desirable to adopt universally for measurements of weight, length, area, capacity, value, a system which gives us only a makeshift quarter and no exact third?

These inconveniences are merely set-offs against the great conveniences.

Set-offs you call them! To me it seems that the inconveniences outweigh the conveniences.

But surely you cannot deny those enormous evils entailed by our present mixed system, which the proposed change would exclude.

I demur to your assertion. I have shown you that the mixed system would in large part remain. You cannot get rid of the established divisions of the circle and the points of the compass. You cannot escape from those quarters which the order of Nature in several ways forces on us. You cannot change the divisions of the year and the day and the hour. It is impossible to avoid all these incongruities by your method, but here is another by which they may be avoided.

You astonish me. What else is possible?

I will tell you. We agree in condemning the existing arrangements under which our scheme of numeration and our modes of calculation based on it, proceed in one way, while our various measures of length, area, capacity, weight, value, proceed in other ways. Doubtless, the two methods of procedure should be unified; but how? You assume that, as a matter of course, the measure-system should be made to agree with the numeration-system; but it may be contended that, conversely, the numeration-system should be made to agree with the measure-system—with the dominant measure-system, I mean.

I do not see how that can be done.

Perhaps you will see if you join me in looking back upon the origins of these systems. Unable to count by giving a name to each additional unit, men fell into the habit of counting by groups of units and compound groups. Ten is a bundle of fingers, as you may still see in the Roman numerals, where the joined fingers of one hand and the joined fingers of the two hands are symbolized. Then, above these, the numbering was continued by counting two tens, three tens, four tens, &c., or 20, 30, 40 as we call them, until ten bundles of ten had been reached. Proceeding similarly, these compound bundles of tens, called hundreds, were accumulated until there came a doubly-compound bundle of a thousand; and so on. Now, this process of counting by groups and compound groups, tied together by names, is equally practicable with other groups than 10. We may form our numerical system by taking a group of 12, then 12 groups of 12, then 12 of these compound groups; and so on as before. The 12-group has an enormous advantage over the 10-group. Ten is divisible only by 5 and 2. Twelve is divisible by 2, 3, 4, and 6. If the fifth in the one case and the sixth in the other be eliminated as of no great use, it remains that the one group has three times the divisibility of the other. Doubtless it is this great divisibility which has made men in such various cases fall into the habit of dividing into twelfths. For beyond the 12 divisions of the zodiac and the originally-associated twelve-month, and beyond the twelfths of the day, and beyond those fourths—sub-multiples of 12—which in sundry cases Nature insists upon, and which in so many cases are adopted in trade, we have 12 ounces to the pound troy, 12 inches to a foot, 12 lines to the inch, 12 sacks to the last; and of multiples of 12 we have 24 grains to the

pennyweight, 24 sheets to the quire. Moreover, large sales of small articles are habitually made by the gross (12 times 12) and great gross ($12 \times 12 \times 12$). Again, we have made our multiplication table go up to 12 times 12, and we habitually talk of dozens. Now, though these particular 12-divisions are undesirable, as being most of them arbitrary and unrelated to one another, yet the facts make it clear that a general system of twelfths is called for by trading needs and industrial needs; and such a system might claim something like universality, since it would fall into harmony with these natural divisions of twelfths and fourths which the metric system necessarily leaves outside as incongruities.

But what about the immense facilities which the method of decimal calculation gives us? You seem ready to sacrifice all these?

Not in the least. It needs only a small alteration in our method of numbering to make calculation by groups of 12 exactly similar to calculation by groups of 10; yielding just the same facilities as those now supposed to belong only to decimals. This seems a surprising statement; but I leave you to think about it, and if you cannot make out how it may be I will explain presently.

III.—The promised explanation may most conveniently be given by reproducing, with various alterations and additions, a letter I wrote about the matter last November twelvemonth to a distinguished man of science. Omitting the name, the letter ran thus:—

“ The enclosed memoranda concerning advantages to be derived from the use of 12 as a fundamental number, were written more than 50 years ago, and have since been lying unused among my papers.

“ I send them to you because you have lately been expressing a strong opinion in favour of the metric system, and of course your opinion will weigh heavily. From the days when the accompanying memoranda were set down, I have never ceased to regret the spreading adoption of a system which has such great defects, and I hold that its universal adoption would be an immense disaster.

“ Of course I do not call in question the great advantages to be derived from the ability to carry the method of decimal calculation into quantities and values, and of course I do not call in question the desirableness of having some rationally-originated unit from which all measures of lengths, weights, forces, &c., shall be derived. That, as promising to end the present chaos, the metric system has merits, goes without saying. But I object to it on the ground that it is inconvenient for various purposes of daily life, and that the conveniences it achieves may be achieved without entailing any inconveniences.

“ One single fact should suffice to give us pause. This fact is that, notwithstanding the existence of the decimal notation, men have in so many cases fallen into systems of division at variance with it, and especially duodecimal division. Numeration by tens and multiples of ten has prevailed among civilized races from early times. What, then, has made them desert this mode of numeration in their tables of weights, measures, and values? They cannot have done this without a strong reason. The strong reason is conspicuous—the need for easy division into aliquot parts. For a long period they were hindered in regularizing their weights and measures by the circumstance that these had been derived from organic bodies and organic lengths—the carat and grain, for instance, or the cubit, foot, and digit. Organic weights

and lengths thus derived were not definite multiples one of another, and where they were approximate multiples the numbers of these were irregular—would not conform to any system. But there early began, as among the Chaldeans, arrangements for bringing these natural measures into commensurable relations. By sexagesimal division (60 being the first number divisible both by 10 and 12) the Babylonian cubit was brought into relation with the Babylonian foot. The stages of change from nation to nation and from age to age, cannot, of course, be traced; but it suffices to recognize the fact that the tendency has been towards systems of easily-divisible quantities—the avoirdupois pound of 16 ounces, for instance, which is divisible into halves, into quarters, into eighths. But, above all, men have gravitated towards a 12-division, because 12 is more divisible into aliquot parts than any other number—halves, quarters, thirds, sixths; and their reason for having in so many cases adopted the duodecimal division, is that this divisibility has greatly facilitated their transactions. When counting by twelves instead of by tens, they have been in far fewer cases troubled by fragmentary numbers. There has been an economy of time and mental effort. These practical advantages are of greater importance than the advantages of theoretical completeness. Thus, even were there no means of combining the benefits achieved by a method like that of decimals with the benefits achieved by duodecimal division, it would still be a question whether the benefits of the one with its evils were or were not to be preferred to the benefits of the other with its evils—a question to be carefully considered before making any change.

“ But now the important fact, at present ignored, and to which I draw your attention, is that it is perfectly pos-

sible to have all the facilities which a method of notation like that of decimals gives, along with all the facilities which duodecimal division gives. It needs only to introduce two additional digits for 10 and 11 to unite the advantages of both systems. The methods of calculation which now go along with the decimal system of numeration would be equally available were 12 made the basic number instead of 10. In consequence of the association of ideas established in them in early days and perpetually repeated throughout life, nearly all people suppose that there is something natural in a method of calculation by tens and compoundings of tens. But I need hardly say that this current notion is utterly baseless. The existing system has resulted from the fact that we have five fingers on each hand. If we had had six on each there would never have been any trouble. No man would ever have dreamt of numbering by tens, and the advantages of duodecimal division with a mode of calculation like that of decimals, would have come as a matter of course.

“ Even while writing I am still more struck with the way in which predominant needs have affected our usages. Take our coinage as an example. Beginning at the bottom we have the farthing ($\frac{1}{4}$ penny), the halfpenny and penny (or one-twelfth of a shilling); next we have the threepenny piece ($\frac{1}{4}$ shilling), the 6d. piece ($\frac{1}{2}$ shilling), and the shilling; and then above them we have the eighth of a pound (2s. 6d.), the quarter of a pound (5s.), and half-pound (10s.). That is to say, daily usage has made us gravitate into a system of doubling and again doubling and re-doubling; and when, until recently, there existed the 4d. piece, we had the convenience of a third as well as a half and a quarter—a convenience which would have been retained but for the likeness of

the 3*d.* and 4*d.* coins. And observe that this system of multiples and sub-multiples has its most conspicuous illustration in the commonest of all processes—retail payments—and that, too, in the usages of a nation which is above all others mercantile.

[Since this letter was written I have been struck by the fact that the ancient wise men of the East and the modern working men of the West, have agreed upon the importance of great divisibility in numerical groups. The Chaldean priests, to whom we owe so much, doubtless swayed in part by their astronomical arrangements, adopted the sexagesimal system of numeration, which at the same time facilitates in a special manner the division into aliquot parts. For 60 may be divided by ten different numbers—2, 3, 4, 5, 6, 10, 12, 15, 20, 30. From this significant fact turn now to the fact presented in our ordinary foot-rule. Each of its 12 inches is halved and re-halved, giving halves, quarters, and eighths. And then, if we consider the sub-divided foot as a whole, it gives us ten sets of aliquot parts. Beyond its 12ths the divisions yield $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{8}$ ($1\frac{1}{2}$ inch), $\frac{1}{16}$ ($\frac{3}{4}$ inch), $\frac{1}{24}$ ($\frac{1}{2}$ inch), $\frac{1}{32}$ ($\frac{3}{8}$ inch), and $\frac{1}{48}$ ($\frac{1}{4}$ inch). And this ordinary mode of dividing the foot-rule results from the experience of centuries; for builders, carpenters, and mechanics, always buying footrules which best serve their needs, have gradually established the most useful set of divisions. And yet, though the early man of science and the modern men of practice are at one in recognizing the importance of great divisibility, it is proposed to establish a form of measure characterized by relative indivisibility!]

“ Now it seems to me that the two facts—first, that in early days men diverged from the decimal division into modes of division which furnished convenient aliquot

parts, and second, that where, as in America, the decimal system has been adopted for coinage, they have in the focus of business fallen into the use of aliquot parts in spite of the tacit governmental dictation—not only prove the need for this mode of division, but imply that, if the metric system were universally established, it would be everywhere traversed by other systems. To ignore this need, and to ignore the consequences of disregarding it, is surely unwise. Inevitably the result must be a prevention of the desired unity of method: there will be perpetual inconveniences from the conflict of two irreconcilable systems. [At the time this prophecy was made, I did not know that in California the "long bits" and "short bits" of the dollar, already illustrated this conflict of systems and its evils.]

"I fully recognize the difficulties that stand in the way of making such changes as those indicated—difficulties greater than those implied by the changes which adoption of the metric system involves. The two have in common to overcome the resistance to altering our tables of weights, measures, and values; and they both have the inconvenience that all distances, quantities, and values, named in records of the past, must be differently expressed. But there would be futher obstacles in the way of a 12-notation system. To prevent confusion different names and different symbols would be needed for the digits, and to acquire familiarity with these, and with the resulting multiplication-table would, of course, be troublesome: perhaps not more troublesome, however, than learning the present system of numeration and calculation as carried on in another language. There would also be the serious evil that, throughout all historical statements, the dates would have to be differently ex-

pressed; though this inconvenience, so long as it lasted, would be without difficulty met by enclosing in parenthesis in each case the equivalent number in the old notation. But, admitting all this, it may still be reasonably held that it would be a great misfortune were there established for all peoples and for all time a very imperfect system, when with a little more trouble a perfect system might be established."

Thus far the letter. And now let me sum up the evidence. Professedly aiming to introduce uniformity of method, the metric system cannot be brought into harmony with certain unalterable divisions of space nor with certain natural divisions of time, nor with the artificial divisions of time which all civilized men have adopted. As 10 is divisible only by 5 and 2 (of which the resulting fifth is useless), its divisibility is of the smallest; and having only a makeshift fourth and no exact third, it will not lend itself to that division into aliquot parts so needful for the purposes of daily life. From this indivisibility it has resulted that, though men from the beginning had in their ten fingers the decimal system ready made, they have, in proportion as civilization has progressed, adopted, for purposes of measurement and exchange, easily divisible groups of units; and in a recent case, where the 10-division of money has been imposed upon them, they have, under pressure of business needs, abandoned it for the system of division into halves, quarters, eighths, sixteenths. On the other hand, the number 12 is unique in its divisibility—yields two classes of aliquot parts; and for this reason has been in so many cases adopted for weights, measures, and values. At the same time it harmonizes with those chief divisions of time which Nature has imposed upon us and with the artifi-

cial divisions of time by which men have supplemented them; while its sub-multiple, 4, harmonizes with certain unalterable divisions of space, and with those divisions into quarters which men use in so many cases. Meanwhile, if two new digits for 10 and 11 be used, there arises a system of calculation perfectly parallel to the system known as decimals, and yielding just the same facilities for computation—sometimes, indeed, greater facilities, for, as shown in the memoranda named in the above letter, it is even better for certain arithmetical processes.

Do I think this system will be adopted? Certainly not at present—certainly not for generations. In our days the mass of people, educated as well as uneducated, think only of immediate results: their imaginations of remote consequences are too shadowy to influence their acts. Little effect will be produced upon them by showing that, if the metric system should be established universally, myriads of transactions every day will for untold thousands of years be impeded by a very imperfect system. But it is, I think, not an unreasonable belief that further intellectual progress may bring the conviction that since a better system would facilitate both the thoughts and actions of men, and in so far diminish the friction of life throughout the future, the task of establishing it should be undertaken.

Hence I contend that adoption of the metric system, while it would entail a long period of trouble and confusion, would increase the obstacles to the adoption of a perfect system—perhaps even rendering them insuperable—and that, therefore, it will be far better to submit for a time to the evils which our present mixed system entails.

P.S.—A mathematician and astronomer, who writes

—“I am much interested in your letters and agree with almost everything,” makes some comments. He says:—“It has always been an astonishing thing to me that the advocates of decimalization do not perceive that its only advantage is in computation. In every other process it is a detriment.” Concerning the 12-notation, he remarks that “the advantages are notorious to all mathematicians.” Apparently less impressed than I am with the advance of knowledge from uncivilized times to our own and the breaking down of habits, now going on with accelerating rapidity, he does not share the expectation that the 12-notation “will ever be adopted in practice”: the obstacles to the change being too great. But without opposing the metric system, as threatening to stand in the way of a more perfect system, he opposes it as intrinsically undesirable, saying:—“I think that all that can be done is to make our coinage and measures as little decimal as possible, and our computation as decimal as may be.”

IV.—From one who every month has to act as auditor, I have received a letter in which he says:—“I had to go over more than £20,000 of accounts yesterday and was very thankful that it was not in francs.”

This statement, coming from a man of business, has suggested to me the question—By whose advice is it that the metric system of weights, measures, and values is to be adopted? Is it by the advice of those who spend their lives in weighing and measuring and receiving payments for goods? Is it that the men who alone are concerned in portioning out commodities of one or other kind to customers and who have every minute need for using this or that division or sub-division of weights or measures, have demanded to use the decimal system? Far from it.

I venture to say that in no case has the retail trader been consulted. There lies before me an imposing list of the countries that have followed the lead of France. It is headed "Progress of the Metric System." It might fitly have been headed "Progress of Bureaucratic Coercion." When fifty years after its nominal establishment in France, the metric system was made compulsory it was not because those who had to measure out commodities over the counter wished to use it but because the Government commanded them to do so; and when it was adopted in Germany under the Bismarckian *régime*, we may be sure that the opinions of shopkeepers were not asked. Similarly elsewhere, its adoption has resulted from the official will and not from the popular will.

Why has this happened? For an answer we must go back to the time of the French Revolution, when scientific men were entrusted with the task of forming a rational system of weights, measures, and values for universal use. The idea was a great one, and, allowing for the fundamental defect on which I have been insisting, it was admirably carried out. As this defect does not diminish its great convenience for scientific purposes the system has been gradually adopted by scientific men all over the world: the great advantage being that measurements registered by a scientific man of one nation are without any trouble made intelligible to men of other nations. Evidently moved by the desire for human welfare at large, scientific men have been of late years urging that the metric system should be made universal, in the belief that immense advantages, like those which they themselves find, will be found by all who are engaged in trade. Here comes in the error. They have identified two quite different requirements. For what pur-

pose does the man of science use the metric system? For processes of measurement. For what purpose is the trader to use it? For processes of measurement *plus* processes of exchange. This additional element alters the problem essentially. It matters not to a chemist whether the volumes he specifies in cubic-centimètres or the weights he gives in grammes, are or are not easily divisible with exactness. Whether the quantities of liquids or gases which the physicist states in litres can or cannot be readily divided into aliquot parts is indifferent. And to the morphologist or microscopist who writes down dimensions in sub-divisions of the mètre, the easy divisibility of the lengths he states is utterly irrelevant. But it is far otherwise with the man who all day long has to portion out commodities to customers and receive money in return. To satisfy the various wants of those multitudes whose purchases are in small quantities, he needs measures that fall into easy divisions and a coinage which facilitates calculation and the giving of change. Force him to do his business in tenths and he will inevitably be impeded.

“ But you forget that the metric system is approved by many mercantile men and that its adoption is urged by Chambers of Commerce.” No, I have not forgotten; and if I had I should have been reminded of the fact by the fears now expressed that our commerce will suffer if we do not follow in the steps of sundry other nations. The fears are absurd. French and German merchants, when sending goods to England, find no difficulty in marking them or invoicing them in English measures. And if English merchants imply that they are too stupid to follow the example in a converse way, they can scarcely expect to be believed. Surely the manufacturers who

supply them with piece-goods will make these up in so many mètres instead of in so many yards if asked to do so; and similarly in all cases. Or if not, it needs but a table on the wall in the clerks' office, giving in parallel columns the equivalents of quantity in English denominations and French denominations, to make easy the needful invoicing and labelling. But it is not on this flimsiest of reasons that I wish chiefly to comment. The fact here to be specially emphasized is that merchants are not in the least concerned with the chief uses of the metric system. Their bales and chests and casks contain large quantities—dozens of yards, hundredweights, gallons. They do not deal with sub-divisions of these. Whether the retailer is or is not facilitated in portioning out these large quantities into small quantities is a question having no business interest for them. More than this is true. Not only have they never in their lives measured out fractional amounts in return for small sums of money, but they have rarely witnessed the process. Their domestic supplies are obtained by deputy, usually in considerable quantities; and neither behind the counter nor before it have they with frequency seen the need for easy divisibility into aliquot parts. Their testimony is supposed to be that of practical men, while in respect of the essential issue—the use of weights and measures for retail trade—they have had no practice whatever.

See then the strange position. The vast majority of our population consists of working people, people of narrow incomes, and the minor shopkeepers who minister to their wants. And these wants daily lead to myriads of purchases of small quantities for small sums, involving fractional divisions of measures and money—measuring transactions probably fifty times as numerous as those

of the men of science and the wholesale traders put together. These two small classes, however, unfamiliar with retail buying and selling, have decided that they will be better carried on by the metric system than by the existing system. Those who have no experimental knowledge of the matter propose to regulate those who have! The methods followed by the experienced are to be rearranged by the inexperienced!

Intentionally or unintentionally those who have bad cases to defend very commonly raise false issues. It has been so in this case. Such responses as I have seen to the foregoing arguments have assumed or asserted that I uphold our existing system of weights, measures, and monies; and they assert this because I have pointed to various conveniences which these have. But if this ascription does not result from a wilful misrepresentation, it results from an unintelligent attention to the argument. The chaotic character of our modes of specifying quantities is as manifest to me as to the metricists. When instancing as convenient these or those tables now in use, I have referred to the *mode of division*; not at all intending to imply approval of the particular sizes or amounts of the divisions: these being in many cases very undesirable.

All who do not perversely misinterpret must surely recognize my thesis as having been that, rather than establish a fundamentally imperfect system based upon 10 as a radix, it will be better to wait until we can change our system of numeration into one with 12 as a radix; and

then on that to base our system of weights, measures, and values: tolerating present inconveniences as well as we may. Opponents do not deny that a 12-system of numeration would be better than is the 10-system, and do not deny that weights, measures, and values would be more conveniently expressed in terms of a 12-system. Their contention is that the change to a 12-system of numeration is not practicable. Tacitly they assume that because people are not now sufficiently intelligent to perceive its advantages, and to take the trouble of making the needful changes, they never will be sufficiently intelligent.

It is strange that with past experiences before them their imagination should thus fail them. See what lessons history reads us. If our cannibal ancestors, who in the forests of Northern Europe two thousand or more years ago sheltered in wigwams and clothed themselves in skins, had been told that some of their descendants would live in massive towers of stone and cover their bodies with metal plates, explanations, even could they have been understood, would have left them utterly incredulous. Or, again, if the mediæval barons had been told that in a few centuries after their deaths, nobles, instead of needing castles and armour, would live in houses which even a solitary thief could break into, and would walk about unarmed without attendants, they would have thought their informant insane. Yet with such cases before them, cultivated classes in our own day suppose that future usages will be like present ones, and that the cul-

ture, ideas, and sentiments now prevailing will always prevail; and they suppose this though men's feelings and thoughts have become more plastic than they ever were before. They cannot conceive that hereafter people may think it worth while to make a revolution (not much more troublesome than that which they advocate) for the purpose of greatly facilitating the billions of transactions, commercial, industrial, and other, daily gone through by mankind.

If, as seems probable, they should have their way—if the Act of Parliament just passed, giving permission to use the Metric System, should presently be followed, as they intend it to be, by an Act making the use of the Metric System compulsory—if in the United States as well as in England and its colonies, governments prompted by bureaucracies, but not consulting the people and clearly against their wishes, should make universal this gravely defective system, very possibly it will remain thereafter unalterable. When the trade within each nation as well as all international commerce has been unified in method, the obstacles to a radical change may be insuperable; even though most should come to see the great superiority of another method. And should this happen, then men of the future looking back on men of the present will say of them that, having before them a system which they recognized as relatively perfect, they deliberately imposed a relatively imperfect system on all mankind for all time.

THE "NET-PRICE" SYSTEM OF BOOKSELLING.

In 1892 there was commenced a movement for re-establishing the system of fixed retail prices for books—a system which in 1852 had been abolished by agreement between authors, publishers, and the book-trade. A reversal of the free-trade policy which, whether or not beneficial to dealers in books, had proved beneficial alike to authors and the public threatened to be a disaster, and I was prompted to do something towards making known the impending evils. To this end I sent to *The Times* the following communication which, under the title of "Publishers, Booksellers, and the Public," made its appearance as "From a Correspondent" on October 24, 1894.

Amid various social changes conspicuous enough to attract public attention, there has recently commenced an unobtrusive change which, trivial as it may appear to many, is likely to produce serious results. It is a change which affects simultaneously the interests of book-buyers and of authors. That the nature of it may be fully understood, the system in force forty odd years ago, unknown to most and forgotten by others, must be recalled.

In 1852 a crisis in the book-trade was produced by a published account of the system established for the be-

nefit of booksellers. Details aside, the effect of this system, as shown by a letter which appeared in *The Times* on April 5, 1852, was that, supposing a book to be advertised at 12s., the sum of 7s. 4d. went to pay for the cost of production, mental and mechanical, and 4s. 8d. went to pay for conveyance to the reader. While 60 per cent. had to cover the charges for type-setting, press-work, paper, binding, advertising, and author's profit, 40 per cent. was charged for portage! The "Committee of the Book Trade," avowedly to protect trade interests, excommunicated all who sold books at lower rates of profit than those prescribed. Any one who disobeyed was prevented, when possible, from obtaining supplies of books for sale; and occasionally recalcitrant retailers were thus ruined. Meanwhile, there were a few retailers who successively resisted the dictation, and maintained a chronic feud with the committee. But their success qualified only in small measure the result achieved, which was that of raising the prices of books to amounts considerably above those needful to yield the retail booksellers adequate profits. In *The Times* for April 16 there was published a leading article adverse to the proceedings of the combination.

Shortly afterwards a meeting of authors was held, presided over by Mr. Charles Dickens and attended by leading representatives of science and literature, whose names were in those days familiar. Resolutions condemnatory of the regulations enforced by the Booksellers' Association were passed, and a conflict with the Association arose. Very soon an arbitration was agreed upon, and Lord Campbell, Dean Milman, and Mr. Grote were chosen as arbitrators. They gave their decision in favour of the authors, and the coercive regulations were forth-

with abolished. That is to say, while the rates of profit allowed to booksellers the same, the enforcement of those rates ceased. The retail distributor was no longer persecuted for making unauthorized discounts.

All know what has since happened, or rather all know what have been the usages for the last generation, though they may not know how they arose. The practice of allowing a discount of 2d. in the 1s. from the advertised price of a book was quickly established, and after a time the discount was by many, and eventually by most, retailers increased to 3d. in the 1s., or 25 per cent. That benefit has resulted cannot well be questioned. Decrease in the price of a book from, say, 12s. to 9s. must have added considerably to the number of copies sold. And, while readers have gained by this greater accessibility, authors have gained by the increased sales; for the author's profit per copy has remained practically the same. It may be true that the cheapening of books has not been wholly advantageous. The wider diffusion given to sensational and trashy literature has been an evil. But English classics of every kind have been brought within the reach of all by the issue of multitudinous editions at extremely low prices. There has been even a more important effect. Grave but enlightening books, scientific, technical, or philosophical, and volumes of dry but instructive facts, have been spread abroad, and many such have been brought into existence which previously could not have existed. While the sales of them were narrowed by artificially enhanced prices, numerous works of thought and information remained unwritten or unpublished. Publishers refused them, and authors dared not issue them at their own risks, unless they were able to bear the prospective losses. Increased sales consequent

on lower prices have thus made possible much of the best literature which would else have been impossible.

These advantages are now being furtively destroyed. Some three years ago, in certain advertisements of books, the word "net" was inserted after the price, implying that no discount would be allowed. Such notices, at first chiefly given in connection with scientific and technical books, have been spreading. Other publishers than the one who commenced the practice have followed his lead, and other classes of books have been gradually included, until now books for popular reading, and even novels, are advertised with this warning word. It is no doubt intended that, as soon as the public become accustomed to it, this practice shall be made universal. The retailer's rate of profit is no longer to be endangered by the competition of his fellows. Already coercive measures, like those which a generation ago maintained this system, are growing up. Booksellers who have allowed small discounts from "net" prices have received warnings that, if they do so again, supplies of books will be denied to them. It is true that the profit now to be secured to the retail distributor is less than was secured before. Still it is in most cases twice as much as that which contents one who allows 25 per cent discount. But the essential question does not concern the amount of the prescribed profit. The essential question is whether a fixed rate shall be maintained. When the growing practice has been fully re-established the rate of profit may be raised without difficulty. As, in the past, publishers who did not yield to the Booksellers' Association were punished either by the ignoring of their books or by the practice of replying to customers who ordered them that they were "out of print" or "at the binder's," so, in future

there may be punishment for publishers who resist any increased claims which the Association makes. Competition once excluded, the monopoly may dictate its own terms. Doubtless we shall hear a defence of these resuscitated regulations. Some will say that retailers should be properly paid for their work, and that underselling by one another does them great mischief. Others will say that publishers benefit by giving retailers a sufficient stimulus to push their books. The authors, too, will be said to gain by the increased sales resulting. It will even possibly be urged that the public are benefitted by having books brought under their notice better than they would otherwise be. To these and other pleas there is a brief but sufficient reply. They were urged a generation ago, and a generation ago they were examined and rejected.

What will happen remains to be seen. Possibly, or even probably, the influences which sufficed to abolish this trade-union dictation in 1852 will suffice to prevent its revival in 1894.

The foregoing communication of course initiated a controversy. The following is the first of the letters which I wrote in reply to opponents. It was entitled "The Bookseller's Trade Union," and in common with all my subsequent letters on this subject was signed "A Free Trader." It was published in *The Times* for October 26, 1894.

There are always reasons to be given for every policy, however really indefensible, which to those who urge them seem quite sufficient, or which they profess to think

quite sufficient. The two correspondents who write about the book-trade in your issue of to-day furnish examples.

The retail booksellers, poor fellows, are being ruined by competition with one another, says Mr. Heinemann, and must be prevented from competing — "those who have to live by books shall be able to live by them." But why not those who have to live by tea and sugar? Why not those whose business is the making of clothes? Does not one grocer injure another by selling coffee and currants at reduced prices? Is it not one tailor's income diminished if another tailor advertises coats and trousers at lower rates? Carry out this trade-union idea to its logical outcome, and we arrive at universal protection. The authorized trader shall be protected against the unauthorized trader, whether he be a foreigner, or whether he be a fellow-citizen. All industrial progress would be stopped if this system were consistently carried out.

Messrs. Hatchards ascribe to the public a remarkable credulity. They practically say:—"Let us enforce rates of profit, from which no discounts are to be made, and the public will not suffer. We will take care that they have their books at the same prices as now." So that publishers and retailers, taken together, are to have larger profits from the sales than at present, but these larger profits are to be at nobody's expense. A curious process this, by which one or other of these book-traders, or both of them, will gain more by the business than they did before, but the extra gain will come from nowhere!

The contention of Messrs. Hatchards is, however, easily disposed of by facts. A correspondent living in a provincial town writes to me:—

"I was informed by a bookseller I deal with in—that he no longer allowed 2d. in the shilling, whereas up to six months ago to my knowledge, and possibly more recently, he has always done so."

So, too, is it in London. A friend gives me his experience as follows:—

I first noticed it about two or three years since in connexion with Macmillan's publications—when he made the price of the *English Illustrated Magazine* 6d. net. It had previously been sent to me on a yearly order from a bookseller for 4½d. a copy.

Thus it is manifest that a rise to the old tariff of profits is not to be looked for in the future; it already exists. Clearly the abolition of the 2d. in the shilling brings the rates to what they were in '52, and clearly if what was to be had three years ago at 4½d. is now only to be had at 6d., it involves that the whole 25 per cent. discount which was allowed to the customer is now appropriated either by publisher or retailer or by the two together; this extra profit being in addition to the profit previously made. The facts therefore directly contradict the statement of Messrs. Hatchards.

That coercive regulations are already in full force there is also clear evidence. Through two channels has proof come to me that booksellers who have made discounts on books issued at "net" prices have their supplies stopped if they disobey the order not to do so again. One of those who have written to me names "the case of a City discount bookseller who has been allowing a small discount on 'net' books. The result has been that he is not allowed to have any more 'net' books from the corresponding publisher or from

any of the other publishers who have been informed of his doings."

So that the revived trade-union system of '52 is now, as then, adopting the usages of trade-unionism in general. There are spies on the disobedient retail booksellers, as among artisans there are pickets to watch the doings of non-unionists. And if there is not that physical bludgeoning by which artisan unionists seek to punish the non-unionists who take lower wages, there is the moral bludgeoning by which the bookseller-unionists endeavour to knock on the head the business of the non-unionists who sell at lower profits.

But even were it the duty of the public to see that the trader in books—publisher, wholesale dealer, or retailer—is well paid, which it is not, there would be sufficiently clear proof that without any such coercive regulations as those now revived, each makes sufficiently good profits. Without emphasizing the cases of the long-established publishing houses, which are notoriously wealthy, there are cases of comparatively recent publishers who have made money in abundance. Unless my memory fails me, it is but a few years since Mr. Macmillan, an entirely self-made man, gave away a large sum for the building of a church. And within these few weeks there has been published the fact that a discount bookseller, recently deceased, left personality exceeding £28,000.

The following letter appeared in *The Times* for October 30, 1894, under the title of "The Book Trade."

Your correspondent "A London Bookseller" misses the point of my comparison. The argument of Mr. Heinemann was:—Booksellers who "live by books shall be

able to live by them"—in other words, they must make fair profits. They undersell one another and so cut down profits. To prevent this their rates of profit must be fixed. My reply was:—Grocers must live by grocery and they must make fair profits. They undersell one another and cut down profits. Therefore their rates of profit must be fixed. It matters not in the least whether fixing the rates of profit is easy in the one case and difficult in the other—that is quite another issue. The argument is—grocers can live though they undersell one another; why then cannot booksellers?

But now let me point out to "A London Bookseller," who proposes to give me a lesson in economics, that in respect of large parts, if not the larger parts, of their businesses, grocers do not differ at all from booksellers; their systems are perfectly parallel. In these modern days every one who passes a grocer's shop observes within the window a barricade of boxes, tins, cases, jars, bottles, packets, &c., filled with patent foods, chocolates, cocoas, pickles, sauces, preserved and potted meats, tinned fish, meat extracts, preserved fruits and jellies, soups, soap, &c. These are all in measured quantities at nominally-fixed prices, but are all sold at reduced prices. In the catalogue of the local stores at which I deal (not emphasizing the eight pages of patent medicines, all having advertised prices that are fixed, but selling prices that are below them) there are over 60 different kinds of household articles in made-up quantities offered to customers at various discounts, from 8 per cent to nearly 50 per cent. These percentages of discount offered by one dealer differ from those offered by another—the dealers compete in the amounts of their discounts. This is exactly what the booksellers do, and are supposed to ruin

one another by doing. My argument is that, since the grocers live by these commodities, though they compete in their discounts, so can the booksellers. Indeed, there needs no proof of this. What have they been doing for the last generation, during which there have been no "net" prices?

The facts above instanced furnish a reply to Mr. Macmillan. He says the change to the "net" system has been made to abolish "this absurd business of putting up a price in order to knock it down again." But, as we see, this "absurd business" is carried on throughout an immense part of our retail trade. The system is one by which alone the maker and the distributor of made-up quantities remain free to settle their respective rates of profit. When this is understood there ceases to be any "absurdity" in the contrast between the nominal and the real prices. Here is a tube of shaving cream which I use every day. It is marked on the outside 1s. 6d.; I buy it for 10d. The contrast may be absurd, but I tolerate the absurdity and pocket the 8d.

Mr. Macmillan's letter suggests one further remark. He implies that the change to "net" prices has been made to exclude the absurd contradiction between a nominal price and a real price. Is the exclusion of this the sole effect of the change? I fancy there is a much more important effect. The *English Illustrated Magazine* could be had a few years ago at 4½d., but cannot now be had under 6d. Something more has happened than the equalization of the nominal and real prices. The 1½d. per copy which before remained in the pockets of the public is now transferred to the pockets of the trade—whether retailers, wholesalers, or publishers, or all three, matters not to the public.

The complaint of Messrs. Whitaker and Williams is by implication dealt with above. Under the present discount system under-selling prevents them from making a "fair living profit," and they therefore want profits fixed. But why should Messrs. Whitaker and Williams have secured to them a "fair living profit" any more than retailers of other classes? Mr. Whitaker does not feel responsible for the profits of his butcher. If he complains to Mr. Slaughter that he charges 11d. per lb. for sirloins whereas Mr. Carcase will supply him with equally good sirloins for 10d. per lb., and if Mr. Slaughter says that he "cannot pay his way honestly, with heavy rent, taxes, and assistants, &c.," unless he charges 11d., Mr. Whitaker will reply that that is his affair, and that Mr. Carcase manages to pay his way though he charges only 10d. If, then, Mr. Whitaker does not concern himself about the sufficiency of Mr. Slaughter's profits, why should other people concern themselves about the sufficiency of Mr. Whitaker's profits?

One more of your correspondents, "B. W.," has to be noticed. He tacitly asks whether the publisher has not a perfect right to sell to the bookseller at what rate he pleases, or to refuse to sell at all. Unquestionably he has. Unquestionably publishers and booksellers are within their right in forming a combination to sell at fixed rates and to boycott any retailer who breaks the rules they make. Nobody may say them nay, so long as they refrain from violence or intimidation; they may to this extent interfere with freedom of contract between the customer and the retail tradesman. But then in retaliation others are free to do things which may be greatly to their disadvantage. The public recognizing the gravity of the issue, may decline business with retailers who

have entered into the league. Or authors, perceiving that inevitably the forbidding of discounts and consequent raising of prices must limit the sales of their works, may prefer to negotiate with publishers who have adopted the "net" system. A more serious thing may happen. Readers may more extensively adopt the practice of ignoring the bookselling organization altogether and dealing directly with the publisher through the post. Already this practice is carried on to a certain extent, and if, as will possibly happen, the publisher allows to the purchaser who buys through the post the whole discount he now allows the trade, instead of allowing only part of it as he does now, the practice will become very extensive.

The next letter appeared in *The Times* of November 6, 1894, under the same title as the last.

Before making special replies to your correspondent "A Former Bookseller," I may set down some general replies.

In the communication published on October 25 which opened the controversy, it was remarked that the arguments once before urged in defence of the bookseller's trade union regulations would be again urged. If on examination they proved invalid in 1852, why should they be valid in 1894? The nature of the trade is the same now as then.

"The same now as then," did I say? Not quite. The conditions have changed in favour of the bookseller. Postage is cheaper; freights cost less; the amount of business is greater. So that if the pleas then put forward were inadequate they are more inadequate now.

My further general reply, which I make once again,

is that for the last forty odd years booksellers have sustained the competition with one another which it is said they cannot sustain. I am not aware that there are more bankruptcies among booksellers than among other traders; and the plain implication is that the evils of competition, which all traders have to bear, do not weigh upon them more than upon others.

Passing to the special arguments used by "A Former Bookseller," let me first remark that he is keenly conscious of those difficulties which stand in the bookseller's way, but appears to be unconscious that every kind of tradesman has other special difficulties which in like manner yield him reasons why he should be protected—reasons in some cases much stronger. Here is a fishmonger whose daily supply goes bad if not quickly sold, and who, if the morning's sale leaves a remnant, has to sell it late in the day at a great sacrifice; and the butcher, in smaller degree, is subject to a like evil. Fruiterers, too, obtain, now from home, now from abroad, commodities many of which are perishable and entail heavy losses when not soon disposed of. Must fishmongers, butchers, fruiterers, &c., therefore have fixed rates of profit that they may be able to bear these deductions from their returns?

But such pleas are irrelevant. The sufficient answer is that in every trade the difficulties, drawbacks, &c., are similarly recognized and allowed for by each member of it and similarly restrain his lowering of prices or making of discounts. If bookseller A makes speculative purchases and occasionally loses by dead stock, so do booksellers B, C, and D; and if A, because he has to cover these losses, cannot afford more than a certain discount, neither can, B, C, or D. Whatever the conditions of the trade, they operate on all, and restrain the underselling of all,

and in some cases result in unusually high rates of profits, as among druggists. The trader has to strike a balance between ruining himself on the one hand by conceding too much and losing business by high prices on the other hand. The balancing is ever going on no matter what the kind of business.

With your permission, Sir, I will deal separately with the remainder of "A Former Bookseller's" argument. It raises questions of another kind, which I am very glad to have raised but cannot treat adequately now.

Meanwhile, let me thank "Half-Profits" for pointing out that I have conceded too much. Unless with the assent of the author the publisher has no right to put any restraints on the distribution of his work. Not only is the author who publishes on commission or on the "half-profits" system liable to have his returns diminished, but even the one who has sold his copyright may be injured and ought to have a voice in the matter. There are other results than pecuniary ones to be considered. An author may be anxious to have his work more widely distributed, either for reputation's sake or for the truth's sake, or for both.

The letter which here follows appeared on November 21, 1894, under the title "The Bookselling Question," and is the last contributed by me to *The Times* on this matter.

Neither your space nor my time will permit me to continue the controversy. Moreover, it is a bootless business to combat those who think that the public are bound to see that every man's business pays, and who think that every town, though it may be small and containing few bookbuyers, must be provided with a good bookshop.

Was it not Sir William Harcourt who said—"We are all Socialists now"? It seems very much like it. All I can further do is to indicate the heads of a remaining argument.

Of the books published not more than one in 20 is put in stock, even by large retail booksellers. A much smaller proportion has been stated to me, but let us say one in 20. That they may do a paying business with this 20th of the books published, retail booksellers say they should have their profits raised by prices from which no discounts are to be allowed—that is, the public should be made to pay on these books an extra amount. But, now, what about the 19 out of the 20 which are not stocked by booksellers? The aim is to make the "net" prices universal. These 19 unstocked books, therefore, will also have their prices raised, and, while the public is made to pay more for them than they would otherwise do, the consequent restriction of sales must diminish the profits going to the authors of them.

Let us ask next what are the respective characters of the 1-20th put in stock and of the 19-20ths not put in stock. The first class, speaking of them in the mass, are of the amusing kind—novels, sensational books, gossiping biographies, narratives of adventures, and so forth, the books which are read by ladies who loll on their sofas instead of attending to their housekeeping and their children, books which minister to what may be called a mental dipsomania. The second class is no doubt made up largely of valueless books, but it also generally includes some books of the highest value—books of authors who have not yet made their names and which are now and then of great importance, instructive books, books of science, philosophy, technical information, in short, grave

books which are most needed for the spread of culture. What happens, then? Various books of most worth, which in any case will have small circulations and will often inflict losses, are to have their small circulations diminished by artificially-raised prices. So that, in short, the literature of amusement, which needs no encouragement, is to be encouraged, while the literature of instruction, which especially needs encouragement, is to be discouraged.

Here I will end with the remark that any one who observes the doings of retail traders in general will see that everywhere "pushing" is a cause of degradation, for the retailer is led by large discounts offered to push the inferior articles, and by slow steps the superior are often thrust out altogether. In a considerable degree this process goes on with retail booksellers. If, therefore, as we are told, the "pushing" of books is made unremunerative by the discount system, I simply reply, "So much the better."

P. S.—A friend suggests the question, How much of the decay in the business of provincial booksellers is due to free libraries, which obtain their supplies of books wholesale from London and make one copy serve for many readers?

From the pages of *The Times* the controversy was transferred to those of the *Athenæum*, and to various antagonists who had been publishing letters in that journal I made the following replies under the signature "An Author," of which the first was published on November 24, 1894, under the title "Publishers, Booksellers, and the Public."

The voices of "the trade," which have been for these three weeks heard in the *Athenæum*, naturally form a harmonious chorus; and the chorus is the more harmonious because the voices come from members of a mutual admiration society.

Mr. Krantz quotes with approval Mr. Heinemann, and Mr. Heinemann quotes with approval Mr. Krantz. Both German by origin, as we must suppose, they applaud things German. We are to take our cue from the bureaucratic country, the socialistic country, the soldier-ridden country—a country where every man is hampered by police regulations in the carrying on of his life; and the coercive administration which, in harmony with the social type, Germany has established in the book trade, is recommended as a coercive administration to be imitated here. To my thinking, anything described as a part of the German *régime* should be regarded, not as something to adopt, but as something to avoid.

And now we have in addition the courtesies and expressions of agreement uttered by "A London Bookseller" to "A Publisher." The thing is extremely natural and means very little. If the representatives of an artisan's trade-union, addressing the public, endorsed one another's arguments, the public would, I think, not consider the mutual endorsement of much value; and if these artisan trade-unionists assured the public that the higher wages they had exacted, by punishing those of their class who worked for less, were advantageous to the community, much more scepticism than belief would pretty certainly be shown.

Let us look at the facts in the broad. Publishers, wholesale dealers, and booksellers constitute a piece of social machinery by which the products of writers are

transferred to readers. The members of this, as of other pieces of social machinery, do the best they can for themselves. They have to live by their work, and they make all the profits they are able. Nobody can blame them. But then let it be understood that they are, in all they do, pursuing their own interests, and do not let us be told that the increase of their gains will be a gain either to writers or to readers. Supposing the kind of distributing work to be the same, then extra pay for it is extra loss to those for whom it is done—writers or readers, or both. With books, as with other things, the essential interests are those of producers and consumers, and it is for them to see that the agency which communicates between them does its work as efficiently and cheaply as possible. There is no reason why the public should pay more than need be for book-distribution than for the distribution of any other kind of commodity.

But my chief purpose in writing this letter is to suggest to "the trade" that there may come from their action results not anticipated. It seems to me that very possibly they will illustrate afresh the French proverb, "It is always the unexpected which happens." They calculate upon certain obviously beneficial results; but they do not consider whether there may not presently be caused results which defeat their aims. I have spoken of the trade as a piece of social machinery, and the figure of speech serves well to point my warning. With machines of wood and iron we see universally that the old and less efficient are replaced by the new and more efficient. The complicated machine which wastes force is thrown aside, and the simple machine which loses less in friction and superfluous movement is substituted for it. Inevitably it must be so with social machinery. The

present system of book-distribution was indispensable in the days of coaches and Pickford's vans—the days when rates of postage were high and no means existed for making small payments at a distance. The cumbersome system then established and universally used was the only one available. But now that a simpler and cheaper and quicker one is available, it is time that the old one should be, in chief part, if not wholly, set aside. Now that we have parcel post and book post, money orders and postal orders, by the aid of which the reader may be brought into direct communication with the author's agent, it is absurd to go on employing the round-about communication. To suppose that the old arrangement can be permanently kept up, now that the new is ready to take its place, is about as rational as to suppose that coaching could be maintained after railways had been established. When it comes to be clearly seen that by postal distribution, dispensing in most cases with the services of booksellers the prices of books may be reduced by at least one-third, and when the buyers of books benefit by this large economy, while makers of books benefit by the consequent more extensive sale of their works, the old and dear system must yield to the new and cheap one; and it seems not improbable that the effort now made to increase the costliness of the old system will serve as a stimulus to the development of the new. At any rate, I for one shall do all I can to further the system of postal distribution.

The following second letter was published on December 29.

I have been in various ways prevented from taking

notice of the arguments of your correspondents on the bookselling question.

Mr. Heinemann thinks to parry my remark about the bias in favour of things German, which characterizes the report of M. Krantz which he endorses, by quoting the corrected statement that the report was made by M. Soudier, "the well-known publisher and bookseller." So far from strengthening his case, he weakens it by this correction. To the bias of patriotism he adds the bias of trade interests and prejudices. Surely it is manifest that while a warp is given to every man by the influences of his nationality, another warp is given by his daily pursuit of profit; and that the ideas which these produce must distort his judgments. If a priest, brought up under Roman Catholic usages, and ever subject to Papal supremacy, were sent over here to report on the organization of the English Church, and if, by some Minister of Public Worship, his report were issued abroad as an authoritative document, we should, I think, smile at the folly of those who so regarded it. In the same manner, instead of accepting M. Soudier's report, endorsed by M. Krantz, as judicial, we may more fitly comment upon the absurdity of an officialism which uncritically accepts conclusions that are, in the nature of things, almost certain to be one-sided. As an author I have very good reason for looking sceptically on a French publisher's views of things.

But now, criticisms aside, let me draw attention to a few undeniable facts. Last year there were published 5,129 new works, besides 1,253 new editions. Of these 5,000 works how many found their ways on to bookseller's counters? Shall we say 500? Possibly a large London bookseller might take as many, or even more,

in the course of the year. But what about the provincial booksellers? Do any of these in great towns place ten new works per week before their customers? And what of booksellers in second and third rate towns? Will any one allege that they put in stock 400 yearly, or 300, or even 200? Nay, indeed, does not a competent authority, Mr. Stott, tell us that good books are rarely seen in the smaller bookseller's shops? But let us make the extreme assumption that one-tenth of the works issued are stocked by booksellers. What becomes of the remaining nine-tenths? Are they waste-paper? Doubtless a few do not sell at all: but bankrupt publishers would be more common than they are if any considerable proportion of their books entailed loss. The recent great multiplication of publishers implies that the business is tolerably prosperous; and if so, the mass of these unstocked nine-tenths of the books are sold at a profit. How then are they distributed to buyers? Evidently in single copies as they are ordered. And this is what every author must infer if he looks into matters. Of the first hundred copies or so "subscribed," if his book promises fairly part may be exposed for sale by leading booksellers in London, Birmingham, Manchester, &c. But the remainder of the thousand, mostly taken in twenty-fives by the wholesale house, goes to meet the demands made by booksellers for copies as they are asked for. Take the kingdom over, and the bookseller does next to nothing save as a channel of communication.

Mr. Stott has published in the *Nineteenth Century* an article entitled "The Decay of Bookselling." It is a title curiously at variance with the facts. In 1890 there were published 4,414 new works, and in 1893 the number was 5,129—an increase of over 700 in three years.

Unless publishers have been deliberately ruining themselves, the great mass of these books must have been sold. How then can there have been a decay in bookselling? Of course, the title of Mr. Stott's article should have been "The Decay of Booksellers"—a widely different thing. And now, thus correcting his title, what is the obvious corollary? The sale of books has gone on partly decreasing in number and partly dwindling. The necessary implication is that the distribution of books has been following other channels: new channels are being formed and the old ones are being partially deserted. What the new channels are every one may see; and that the draft into them is adequate to account for the change, every one may infer. To a small extent we have the distribution by post, though this is at present not large. We have the growth of the great libraries during the last fifty years—Mudie's, which began as a small shop in Southampton Row; the other, at first separate but now amalgamated, circulating libraries; the London Library, which during the same period has raised its annual circulation to 120,000; and lastly, the everywhere ramifying agency of Messrs. Smith & Son, having dépôts in all towns throughout the kingdom—dépôts which bring their library system within reach of every one, and afford in every place means of buying and ordering books. Surely the actions of these competitors suffice to account for the change which Mr. Stott deplores; especially if there be added the effects of free libraries, now so common in large towns.

Leaving out the interests of authors and public, it seems to me that, even from a bookseller's point of view, the "net" system is an extremely questionable remedy. Every trader knows that while raising the price increases

the profit on each article, it is apt to diminish the number of articles sold, and so may decrease returns instead of increasing them. Will it not be the same with books? Especially in face of the competing channels of distribution which are now drafting off part of their business, will not booksellers, by raising prices, as the "net" system must practically raise them, force still more of the current of distribution into these competing channels?

One further letter on the subject, which runs as follows, was contributed to another periodical—*The Author* for December, 1894.

I am very glad to hear that the committee propose to ascertain the consensus of opinion among members of the Author's Society on the question of "net" prices. I presume that a general meeting will be held for the purpose.

The very decided opinion which I myself entertain on the matter has two grounds. In the first place I hold that all such restrictive interferences with freedom of contract are inevitably mischievous in the end; and, in the second place, I hold that the particular restriction now sought for will be detrimental alike to authors and to the public.

Those authors who have not carefully considered the question might, I think, not unfitly be guided by the decision which authors arrived at in 1852. If at that time, after inquiry and consultation, it was decided by a number of leading authors, literary and scientific, that the system of fixed prices from which no discounts were allowed was detrimental to them, the conclusion that such a system, if now re-established, would be detri-

mental, is at any rate a highly probable one; for there have, so far as I know, taken place no changes which may be supposed to make the conclusion held valid in the one case invalid in the other.

But it need not take long to form an independent judgment. There is often an irrational cry against middle-men, though middle-men are, in the majority of cases, very useful persons. But in all cases middlemen must be kept in order. They, of course, pursue their own interests, and, if allowed, will satisfy those interests at the expense of those they serve. This is obviously the case with the middlemen who constitute the various classes of the book trade as with all others. On the face of it, therefore, any proposal of change made by them must be looked upon with great suspicion.

That a disadvantage is threatened in the present case will at once be seen when the essentials are divested of all details. It is contended that retail booksellers must have greater profits assured to them. These greater profits must be at the cost of some among the several parties concerned. At whose cost then? Those concerned are the writers, the readers, and the several classes of traders who come between them. Of these classes of traders one is to have greater gains. Will these greater gains come from the other classes of traders? Will the publishers, for instance, sacrifice part of their profits for the benefit of retailers? Certainly not. They can practically make their own terms, and will sacrifice nothing, if they do not even take a share of the extra gains. Will the sacrifice be made by the wholesale bookseller? It is unlikely; for he, too, has power in his hands to make his own bargains, and can take care he does not lose by the change. There remain then the public and the authors,

one or both of whom must suffer a loss that the retailers may gain. That the public will suffer a loss is clear, if the discounts now made from advertised prices are denied to them; for it is absurd to suppose that advertised prices will be lowered to balance the absence of discounts. If that were done publishers would gain nothing. Clearly, then, the loss would be borne directly by the public. But eventually a loss would also be borne by the authors. It is impossible that the prices of books can be raised to buyers without to some extent restricting the sales. "This book is advertised at 12s.," says the buyer to the retailer. "That is too much; I must go without it." "But," says the retailer, "you can have it for 9s." "For 9s., you say. I can afford 9s. You may let me have it." Conversations of this kind, or thoughts corresponding to such conversations, must be of continual occurrence. Obviously, therefore, if discounts are given many more copies of a book are sold than would be sold in the absence of discounts, and of course diminution in the number of copies sold is diminution of the author's profit, though the rate of profit remains the same.

Alike, then, on our own behalf and on behalf of the public, we are, I think, bound to oppose the attempt to establish "net" prices.

Only three or four brief letters taking the same side were published: all others were letters from my antagonists, with whom I had to carry on the controversy almost single-handed. Since the date of the last letter the conflict has been proceeding with advantage to the trade-unionist party. The "net" system of publication has been spreading; and now the retailer who makes dis-

counts from books published at "net" prices, or who gives more than twopence in the shilling discount on other books, is to be boycotted.

Probably we shall return to something like the condition of things which was abolished in 1852. Universally there is going on a return to medievalism in the forms of industrial government—a re-establishment of gild-regulations. In this case, as in other cases, it will be seen that men who are without clear ideas of freedom, and in whom the sentiment of freedom is weak, will lose what freedom they had gained. The *régime* of contract which recent times have seen gradually established, is giving way before the revived *régime* of status—voluntary cooperation is being gradually replaced by compulsory cooperation. In matters of trade each individual has decreasing power to do what he likes and increasing obligation to do what others like. Submitting as he does to the dictation of his fellows, he is more and more owned by them and less and less owned by himself.

WHAT IS SOCIAL EVOLUTION?

The following article, originally published in *The Nineteenth Century* for September, 1898, was called forth in reply to one published by Mr. W. H. Mallock in the preceding number of that periodical—one in which, responding at length to a letter of mine in *Literature*, he had continued that attack on my views he commenced in his *Aristocracy and Evolution*.

Though to Mr. Mallock the matter will doubtless seem otherwise, to most it will seem that he is not prudent in returning to the question he has raised; since the result must be to show again how unwarranted is the interpretation he has given of my views. Let me dispose of the personal question before passing to the impersonal one.

He says that I, declining to take any notice of those other passages which he has quoted from me, treat his criticism as though it were "founded exclusively on the particular passage which" I deal with, "or at all events to rest on that passage as its principal foundation and justification." * It would be a sufficient reply that in a letter to a newspaper numerous extracts are inadmissible; but there is the further reply that I had his own warrant for regarding the passage in question as conclusively showing the truth of his representations. He writes:—

"Should any doubt as to the matter still remain in the reader's mind, it will be dispelled by the quotation of

* *Nineteenth Century*, p. 316.

one further passage. '*A true social aggregate*,' he says [*'as distinct from a mere large family'*], *is a union of like individuals, independent of one another in parentage, and approximately equal in capacities.'*"*

I do not see how, having small liberty of quotation, I could do better than take, as summarising his meaning, this sentence which he gives as dissipating "any doubt." But now let me repeat the paragraph in which I have pointed out how distorted is Mr. Mallock's interpretation of this sentence.

" Every reader will assume that this extract is from some passage treating of human societies. He will be wrong, however. It forms part of a section describing Super-Organic Evolution at large (*Principles of Sociology*, § 3), and treating, more especially, of the social insects: the purpose of the section being to exclude these from consideration. It is implied that the inquiry about to be entered upon concerns societies formed of like units, and not societies formed of units extremely unlike. It is pointed out that among the *Termites* there are six unlike forms, and among the *Sauba* ants, besides the two sexually-developed forms, there are three classes of workers—one indoor and two outdoor. The members of such communities—queens, males, soldiers, workers—differ widely in their structures, instincts, and powers. These communities formed of units extremely unequal in their capacities are contrasted with communities formed of units approximately equal in their capacities—the human communities about to be dealt with. When I thus distinguished between groups of individuals having widely different sets of faculties, and groups of individuals having similar sets of faculties (constituting their common human nature), I never imagined that by speaking of these last as having approximately equal capacities, in contrast with the first as having extremely

* *Aristocracy and Evolution*, pp. 52–53. The italics are his.

unequal ones, I might be supposed to deny that any considerable differences existed among these last. Mr. Mallock, however, detaching this passage from its context, represents it as a deliberate characterization to be thereafter taken for granted; and, on the strength of it, ascribes to me the absurd belief that there are no marked superiorities and inferiorities among men! or, that if there are, social results flow from them!" *

Though I thought it well thus to repudiate the absurd belief ascribed to me, I did not think it well to enter upon a discussion of Mr. Mallock's allegations at large. He says I ought to have given to the matter "more than the partial and inconclusive attention he has [I have] bestowed upon it." Apparently he forgets that if a writer on many subjects deals in full with all who challenge his conclusions, he will have time for nothing else; and he forgets that one who, at the close of life, has but a small remnant of energy left, while some things of moment remain to be done, must as a rule leave assailants unanswered or fail in his more important aims. Now, however, that Mr. Mallock has widely diffused his misinterpretations, I feel obliged, much to my regret, to deal with them. He will find that my reply does not consist merely of a repudiation of the absurdity he ascribes to me.

The title of his book is a misnomer. I do not refer to the fact that the word "Aristocracy," though used in a legitimate sense, is used in a sense so unlike that now current as to be misleading: that is patent. Nor do I refer to the fact that the word "Evolution," covering, as it does, all orders of phenomena, is wrongly used when it is applied to that single group of phenomena constitut-

ing Social Evolution. But I refer to the fact that his book does not concern Social Evolution at all: it concerns social life, social activity, social prosperity. Its facts bear somewhat the same relation to the facts of Social Evolution as an account of a man's nutrition and physical welfare bears to an account of his bodily structure and functions.

In an essay on "Progress: its Law and Cause," published in 1857, containing an outline of the doctrine which I have since elaborated in the ten volumes of *Synthetic Philosophy*, I commenced by pointing out defects in the current conception of progress.

"It takes in not so much the reality of Progress as its accompaniments—not so much the substance as the shadow. That progress in intelligence seen during the growth of the child into the man, or the savage into the philosopher, is commonly regarded as consisting in the greater number of facts known and laws understood; whereas the actual progress consists in those internal modifications of which this increased knowledge is the expression. Social progress is supposed to consist in the produce of a greater quantity and variety of the articles required for satisfying men's wants; in the increasing security of person and property; in widening freedom of action; whereas, rightly understood, social progress consists in those changes of structure in the social organism which have entailed these consequences. The current conception is a teleological one. The phenomena are contemplated solely as bearing on human happiness. Only those changes are held to constitute progress which directly or indirectly tend to heighten human happiness. And they are thought to constitute progress simply *because* they tend to heighten human happiness. But rightly to understand progress, we must inquire what is the nature of these changes, considered apart from our interests." *

* *Westminster Review*, April, 1857.

With the view of excluding these anthropocentric interpretations and also because it served better to cover those inorganic changes which the word "progress" suggests but vaguely, I employed the word "evolution." But my hope that, by the use of this word, irrelevant facts and considerations would be set aside, proves ill-grounded. Mr. Mallock now includes under it those things which I endeavoured to exclude. He is dominated by the current idea of progress as a process of improvement, in the human sense; and is thus led to join with those social changes which constitute advance in social organization, those social changes which are ancillary to it—not constituting parts of the advance itself, but yielding fit materials and conditions. It is true that he recognizes social science as aiming "to deduce our civilization of to-day from the condition of the primitive savage." It is true that he says social science "primarily sets itself to explain, not how a given set of social conditions affects those who live among them, but how social conditions at one epoch are different from those of another, how each set of conditions is the resultant of those preceding it." * But in his conception as thus indicated he masses together not the phenomena of developing social structures and functions only, but all those which accompany them; as is shown by the complaint he approvingly cites that the sociological theory set forth by me does not yield manifest solutions of current social problems: † clearly implying the belief that an account of social evolution containing no lessons which he who runs may read is erroneous.

While Mr. Mallock's statements and arguments thus recognize Social Evolution in a general way, and its con-

* *Aristocracy and Evolution*, pp. 5, 7.

† *Ibid.*, pp. 10-11.

tinuity with evolution of simpler kinds, they do not recognize that definition of evolution under its various forms, social included, which it has been all along my purpose to illustrate in detail. He refers to evolution as exhibited in the change from a savage to a civilized state; but he does not ask in what the change essentially consists, and, not asking this, does not see what alone is to be included in an account of it. Let us contemplate for a moment the two extremes of the process.

Here is a wandering cluster of men, or rather of families, concerning which, considered as an aggregate, little more can be said than can be said of a transitory crowd: the group considered as a whole is to be described not so much by characters as by the absence of characters. It is so loose as hardly to constitute an aggregate, and it is practically structureless. Turn now to a civilized society. No longer a small wandering group but a vast stationary nation, it presents us with a multitude of parts which, though separate in various degrees, are tied together by their mutual dependence. The cluster of families forming a primitive tribe separates with impunity: now increase of size, now dissension, now need for finding food, causes it from time to time to divide; and the resulting smaller clusters carry on what social life they have just as readily as before. But it is otherwise with a developed society. Not only by its stationariness is this prevented from dividing bodily, but its parts, though distinct, have become so closely connected that they cannot live without mutual aid. It is impossible for the agricultural community to carry on its business if it has not the clothing which the manufacturing community furnishes. Without fires neither urban nor rural populations can do their work, any more than can

the multitudinous manufacturers who need engines and furnaces; so that these are all dependent on coal-miners. The tasks of the mason and the builder must be left undone unless the quarryman and the carpenter have been active. Throughout all towns and villages retail traders obtain from the Manchester district the calicoes they want, from Leeds their woollens, from Sheffield their cutlery. And so throughout, in general and in detail. That is to say, the whole nation is made coherent by the dependence of its parts on one another—a dependence so great that an extensive strike of coal-miners checks the production of iron, throws many thousands of ship-builders out of work, adds to the outlay for coal in all households, and diminishes railway dividends. Here then is one primary contrast—the primitive tribe is incoherent, the civilized nation is coherent.

While the developing society has thus become integrated, it has passed from its original uniform state into a multiform state. Among savages there are no unlikenesses of occupations. Every man is hunter and upon occasion warrior; every man builds his own hut, makes his own weapons; every wife digs roots, catches fish, and carries the household goods when a change of locality is needed: what division of labour exists is only between the sexes. We all know that it is quite otherwise with a civilized nation. The changes which have produced the coherence have done this by producing the division of labour: the two going on *pari passu*. The great parts and the small parts, and the parts within parts, into which a modern society is divisible, are clusters of men made unlike in so far as they discharge the unlike functions required for maintaining the national life. Rural labourers and farmers, manufacturers and their

workpeople, wholesale merchants and retailers, &c. &c., constitute differentiated groups, which make a society as a whole extremely various in composition. Not only in its industrial divisions is it various, but also in its governmental division; from the components of the legislature down through the numerous kinds and grades of officials, down through the many classes of masters and subordinates, down through the relations of shopkeeper and journeyman, mistress and maid. That is to say, the change which has been taking place is, under one aspect, a change from homogeneity of the parts to heterogeneity of the parts.

A concomitant change has been from a state of vague structure, so far as there is any, to a state of distinct structure. Even the primary differentiation in the lowest human groups is confused and unsettled. The aboriginal chief, merely a superior warrior, is a chief only while war lasts—loses all distinction and power when war ceases; and even when he becomes a settled chief, he is still so little marked off from the rest that he carries on his hut-building, tool-making, hunting, &c. just as the rest do. In such organization as exists nothing is clearly distinguished, everything is confused. Quite otherwise is it in a developed nation. The various occupations, at the same time that they have become multitudinous, have become clearly specialized and sharply limited. Read the London Directory, and while shown how numerous they are, you are shown by the names how distinct they are. This increasing distinctness has been shown from the early stages when all freemen were warriors, through the days when retainers now fought and now tilled their fields, down to the times of standing armies; or again from the recent days when in each

rural household, besides the bread-winning occupation, there were carried on spinning, brewing, washing, to the present day when these several supplementary occupations have been deputed to separate classes exclusively devoted to them. It has been shown from the ages when guilds quarrelled about the things included in their respective few businesses, down to our age when the many businesses of artisans are fenced round and disputed over if encroached upon, as lately by boilermakers and fitters; and is again shown by the ways in which the professions—medical, legal, and other—form themselves into bodies which shut out from practice, if they can, all who do not bear their stamp. And throughout the governmental organization, from its first stage in which the same man played various parts—legislative, executive, judicial, militant, ecclesiastic—to late stages when the powers and functions of the multitudinous classes of officials are clearly prescribed, may be traced this increasing sharpness of division among the component parts of a society. That is to say, there has been a change from the indefinite to the definite. While the social organization has advanced in coherence and in heterogeneity, it has also advanced in definiteness.

If, now, Mr. Mallock will turn to *First Principles*, he will there see that under its chief aspect Evolution is said to be a change from a state of indefinite, incoherent homogeneity to a state of definite, coherent heterogeneity. If he reads further on he will find that these several traits of evolution are successively exemplified throughout astronomic changes, geologic changes, the changes displayed by each organism, by the aggregate of all organisms, by the development of the mental powers, by the genesis of societies, and by the various prod-

ucts of social life—language, science, art, &c. Pursuance of the inquiry will show him that in the series of treatises (from which astronomy and geology were for brevity's sake omitted) dealing with biology, psychology, and sociology, the purpose has been to elaborate the interpretations sketched out in *First Principles*; and it will also show him that I have not been concerned to do more than delineate those changes of structure and function which, according to the definition, constitute Evolution. He will see that in treating of social evolution I have dealt only with the transformation through which the primitive small social germ has passed into the vast highly-developed nation. And perhaps he will then see that those which he regards as all-important factors are but incidentally referred to by me because they are but unimportant factors in this process of transformation. The agencies which he emphasizes, and in one sense rightly emphasizes, are not agencies by which the development of structures and functions has been effected. They are only agencies by which social life has been facilitated and exalted, and aids furnished for further social evolution.

Respecting the essential causes of this social transformation, it must suffice to say that it results from certain general traits in human beings, joined with the influences of their varying circumstances.

Every man aims to pass from desire to satisfaction with the least possible hindrance—follows the line of least resistance. Either the shortest path, or the path which presents fewest impediments, is that which he chooses; and the like applies to courses of conduct at large: he does not use great effort to satisfy a want when

small effort will do. Given his surroundings, and the occupation he chooses, when choice is possible, is that which promises a satisfactory livelihood with the least tax on such powers as he has, bodily and mental—is the easiest to his particular nature, all things considered. What holds of individuals holds of masses of individuals; and hence the inhabitants of a tract offering facilities for a particular occupation fall into that occupation. In § 732 of the *Principles of Sociology* I have given from various countries illustrations of the ways in which local conditions determine the local industries:—instance among ourselves mining districts where there are coal, ironstone, lead, slate; wheat-growing districts and pastoral districts; fruit and hop districts; districts for weavers, stockingers, workers in iron; places for ship-building, importing, fishing, &c.: showing that certain sections of the population become turned into organizations for the production of certain commodities, without reference to the directive agency of any man. So in each case is it with the various classes of merchants, shopkeepers, professional men, &c., who in these several centres minister to those engaged in its special industries: nobody ordering them to come or to go.

Similarly when we pass from production to distribution. As in India at the present time, where a Jugger-naut-festival is accompanied by a vast fair; as, according to Curtius and Mommsen, in Greece and Rome, the gatherings of people to make sacrifices to the gods were the occasions for trading; so in Christian times, church-festivals and saints' days, drawing assemblages of people for worship, led to active exchange of commodities—the names of the fairs proving their origin. This was not arranged by any one: it arose from the common-sense of

all who wanted to sell some things and buy others. There has been a like history of the rise of markets, and the transition from weekly to bi-weekly, and finally to daily, markets in respect of important things—corn, money, securities. No superior man, political or other, dictated these developments. When barter gave place to exchange by means of a currency, the like happened. One wanting to dispose of surplus goods, meeting one who had no personal need for such goods, took in exchange certain things in universal demand, which he knew he would be able to pass on in like manner—in early stages articles of food, of warmth, of defence, of ornament; and from such articles arose in each case a currency—here dried fish, there tea-bricks, and in other cases skins, bundles of cotton, here standard bars of rock salt, there standard bars of iron, in one place definite lengths of cloth, and in another fine mats, and in many places ornaments and the materials for ornaments: which last, gold and silver, being relatively portable, passed into wide use. These precious metals were at first in quantities actually weighed; then in quantities of professed weight; and finally in quantities bearing the king's stamp as being the most trustworthy. No great man—political, industrial, or other—invented this system. It has everywhere resulted from men's efforts to satisfy their needs in the easiest ways. So was it with the transition from a currency of intrinsic value to one of representative value. When, instead of a direct payment in coin, there came to be used a memorandum of indebtedness to be presently discharged, which could be transferred to others—when, as in Italy, to save the weighing and testing of miscellaneous coins, there arose the practice of depositing specified quantities with a custodian

and having from him negotiable receipts—when, as in England, the merchants, after having been robbed by the king of their valuables, left for security in the Tower, sought safer places, and, depositing them in the vaults of goldsmiths, received in return “goldsmiths’ notes,” which could pass from hand to hand; there was initiated a paper-currency. Goldsmiths developed into bankers; after central banks there arose provincial banks; promises to pay became to a great extent substitutes for actual payments; and presently grew up the supplementary system of cheques, extensively serving in place of coin and notes. Finally, bank-clerks in London, instead of presenting to the respective banks the many and various claims upon them, met and exchanged these claims and settled the balance: whence presently came the clearing house. No superior man arranged all this. Each further stage was prompted by the desire to economize labour. From primitive fairs up to the daily transactions of the money market, distribution and exchange have developed without the dictation of any great man, either of Mr. Carlyle’s sort or of Mr. Malllock’s sort. It has been so throughout all other arrangements subserving national life, even the governmental. Though here at least it seems that the individual will and power play the largest part, yet it is otherwise. I do not refer merely to the fact that without loyalty in citizens a ruler can have no power; and that so the supremacy of a man intrinsically or conventionally great, is an outcome of the average nature; but I refer to the fact that governmental evolution is essentially a result of social necessities. On tracing its earliest stages from savage life upwards, it becomes manifest that even a ministry is not the mere invention of a king.

It arises everywhere from that augmentation of business which goes along with increase of territory and authority, and entails the necessity for deputing more and more work. Under its special aspect it seems to be wholly a result of the king's private action, but under its general aspect it is seen to be determined by the conditions of his existence. And it is so with governmental institutions at large. Without tracing these further it will suffice to quote the saying of Macintosh—"Constitutions are not made but grow."

Of course inequalities of nature and consequent inequalities of relative position are factors in social changes. Of course, as implied above, any assertion of the approximate equality of human beings save in the sense that they are beings having sets of faculties common to them all, is absurd; and it is equally absurd to suppose that the unlikenesses which exist are without effects on social life. I have pointed out that in the earliest stages of social evolution, when war is the business of life, the supremacy of a leader or chief, or primitive king, is a fact of cardinal importance; and also that the initiator of ecclesiastical control is necessarily distinguished from others "by knowledge and intellectual capacity." The beginnings of industrial evolution are also ascribed by me to differences of individual capacity; as instance the following passages from that part of the *Principles of Sociology* which deals with Industrial Institutions.

"The natural selection of occupations has for its primary cause certain original differences between individuals, partly physical, partly psychical. Let us for brevity's sake call this the physio-psychological cause." (§ 730.)

“That among the fully-civilized there are in like manner specializations of function caused by natural aptitudes, needs no showing: professions and crafts are often thus determined . . . occupations of relatively skilled kinds having fallen into the hands of the most intelligent.” (§ 731.)

“Speaking generally, the man who, among primitive peoples, becomes ruler, is at once a man of power and a man of sagacity: his sagacity being in large measure the cause of his supremacy. We may therefore infer that as his political rule, though chiefly guided by his own interests, is in part guided by the interests of his people, so his industrial rule, though having for its first end to enrich himself, has for its second end the prosperity of industry at large. It is a fair inference that on the average his greater knowledge expresses itself in orders which seem, and sometimes are, beneficial.” (§ 770.)

“In its beginnings slavery commonly implies some kind of inferiority.” (§ 795.)

“Considered as a form of industrial regulation, slavery has been natural to early stages of conflicts and consolidations.” (§ 800.)

“The rise of slavery exhibits in its primary form the differentiation of the regulative part of a society from the operative part.” (§ 798.)

The recognition of these effects of individual differences, especially in early stages, may rightly go along with the assertion that all the large traits of social structure are otherwise determined—that all those great components of a society which carry on the various industries, making the life of the whole possible, all those specialized classes which have established and maintained the interdependence of the producing structures, by facilitating and regulating the exchange of their products, have arisen from the play of aggregate forces, constituted of

men's desires directed by their respective sets of circumstances. Mr. Mallock alleges that the great fact of human inequality—the fact that there is a minority “more gifted and efficient than the majority”—is the fundamental fact from which “the main structural characteristics of all civilized societies spring.”* That he should assert this in presence of all the evidence which the *Principles of Sociology* puts before him, is, to use the weakest word, surprising. If his assertion be true, however, the way of demonstrating its truth lies open before him. In Volumes II and III of the *Principles of Sociology*, several groups of institutions, presented by every developed society, are dealt with under the heads, Political, Ecclesiastical, Professional, Industrial: seventy-one chapters being included in them. Each chapter treats of some aspect, some division or sub-division, of the phenomena grouped under the general head. Instead of the Industrial Institutions discussed above, suppose that Mr. Mallock takes a group not touched upon—Professional Institutions. The thesis worked out in the part so entitled is that all the professions are differentiated from the priesthood; and the differentiation is tacitly represented as due to the slow operation of those natural causes which lead to specializations of function throughout the whole social aggregate. If Mr. Mallock is right, then of the chapters dealing with the ten professions enumerated, each is wrong by omitting to say anything about the great man, political, industrial, or other, who set up the differentiation or from time to time consciously gave it a more pronounced character—who thought that it would be well that there should be a separate medical class, or a sepa-

* *Nineteenth Century*, pp. 314-315.

rate teaching class, or a separate artist class, and then carried his thought into effect. Mr. Mallock's course is simply to take each of these chapters and show how, by the recognition of the supplementary factor on which he insists, the conclusions of the chapter are transformed. If he does this he will do more than by merely asserting that my views of social evolution are wrong because the "great fact of human inequality" "is systematically and ostentatiously ignored."

If in his title Mr. Mallock had, instead of "Evolution," written Social Sustentation, the general argument of his book would have been valid. If, further, he had alleged that social sustentation is essential to social evolution, and that in the absence of processes facilitating social sustentation social evolution cannot take place, no one could have gainsaid his conclusion. And if he had inferred that whoever improves these processes betters the conditions which favour social evolution, his inference would have been true. But this admission may be made without admitting that the men who directly or indirectly further sustentation, or who improve the quality of the social units, are the agents who determine and direct social evolution. An account of their doings in no way constitutes an account of that social transformation from an indefinite incoherent homogeneity to a definite coherent heterogeneity, in which the evolution of a society essentially consists.

Moreover Mr. Mallock is justified in contending that the great man—discoverer, inventor, teacher, administrator, or other—may equitably receive all the reward which, under the principle of contract, flows to him as the result of his superiority; and that disregard of his

claim by the mass of men is alike inequitable and ungrateful. This is the position I have myself taken, as witness the following:—

“ Even were an invention of no benefit to society unless thrown open to unbought use, there would still be no just ground for disregarding the inventor’s claim; any more than for disregarding the claim of one who labours on his farm for his own benefit and not for public benefit. But as it is, society unavoidably gains immensely more than the inventor gains. Before he can receive any advantage from his new process or apparatus, he must confer advantages on his fellow-men—must either supply them with a better article at the price usually charged, or the same article at a lower price. If he fails to do this, his invention is a dead letter; if he does it, he makes over to the world at large nearly all the new mine of wealth he has opened. By the side of the profits which came to Watt from his patents, place the profits which his improvements in the steam-engine have since brought to his own nation and to all nations, and it becomes manifest that the inventor’s share is infinitesimal compared with the share mankind takes. And yet there are not a few who would appropriate even his infinitesimal share! ” *

Had Mr. Mallock recognised the fundamental distinction I have pointed out between social sustentation, life, activity, enlightenment, &c., on the one hand, and the development of social structures on the other, his polemic against socialists and collectivists would have been equally effective, and he would not have entailed upon me an expenditure of time and energy which I can ill spare.

* *Justice*, pp. 110-111.

THE LAND QUESTION.

In 1892 Mr. Henry George, whose work *Progress and Poverty* had made him widely known, published a volume entitled *A Perplexed Philosopher*, containing an elaborate vituperation of me for an alleged abandonment of the view I had set forth in *Social Statics* concerning land-ownership, and ascribing this abandonment to unworthy motives. Many attempts were made to draw me into a controversy, but I remained silent until, nearly two years after, a grave misstatement concerning my attitude, made in an English daily paper, prompted me to say something. My letter became the text for various further misrepresentations, until at length I found it needful to issue, in America and here, a disproof of the allegations made. This took the form of a double-columned pamphlet containing, side by side, quotations from my early work *Social Statics* and from my recent work *Justice*, proving that no such change as that alleged had taken place. As the misconception generated at that time has doubtless in many minds survived, and as the same misconception may be fallen into by others, I decide to reproduce here, in a permanent form, the preface and postscript to this pamphlet, which briefly set forth the essential points.

A profound misbelief respecting the difference between my original view concerning landownership and

my present view has been widely diffused, and it seems desirable that this misbelief should be dissipated by a simple statement of what the original view was and what the present view is.

(1) I originally contended that the land could not become individual property, but was the property of the community, and that this is, in fact, the current legal doctrine in England, since the State assumes the power to appropriate any land it pleases on making compensation: a like power to appropriate land for public use and benefit subject to a like condition being, I believe, asserted in the American national and State Constitutions, and held by the Courts to be an inextinguishable attribute of sovereignty appertaining to every independent government. This doctrine I continue to hold; and, in *Justice*, I have not only adhered to it, but have emphasized it and strengthened it by numerous facts, showing what is the tenure of land in early communities, and that such tenure is of the kind alleged—ownership by the community. In these passages it is shown that among the uncivilized “private ownership of land is unknown”; that originally among the civilized the relation of men to the soil “was one of joint ownership and not one of individual ownership”; that the cause of the change from this original state “must have been the exercise of direct or indirect force—sometimes internal but chiefly external”; that in England “no absolute ownership of land is recognised by our law books except in the Crown”; and that the changes which have “replaced the supreme power of the monarch by the supreme power of the people have, by implication, replaced the monarch’s supreme ownership of the land by the people’s supreme ownership of the land.” Here,

then, there is not the least surrendering of the original doctrine, but rather an enforcement of it.

(2) Along with this assertion of the claim of the community to the land itself, in *Social Statics* I made the further assertion that the private owner has a claim to all that value given to the land by clearing, draining, cultivation, and all the appliances standing upon it for carrying on food-production. Here are two passages from the chapter on "The Right to the Use of the Earth," clearly showing this.

(a) "Well, but surely you would not eject me without making some recompense for the great additional value I have given to this tract, by reducing what was a wilderness into fertile fields? You would not turn me adrift and deprive me of all the benefit of those years of toil it has cost me to bring this spot into its present state?

"Of course not: just as in the case of a house, you would have an equitable title to compensation from the proprietor for repairs and new fittings, so the community cannot justly take possession of this estate without paying for all that you have done to it. This extra worth which your labour has imparted to it is fairly yours; and although you have, without leave, busied yourself in bettering what belongs to the community, yet no doubt the community will duly discharge your claim. But admitting this is quite a different thing from recognising your right to the land itself. It may be true that you are entitled to compensation for the improvements this inclosure has received at your hands, and at the same time it may be equally true that no act, form, proceeding, or ceremony can make this inclosure your private property."

* * * * *

(b) "But, unfortunately, most of our present land-owners are men who have, either mediately or immedi-

ately—either by their own acts or by the acts of their ancestors—given for their estates equivalents of honestly earned wealth, believing that they were investing their savings in a legitimate manner. To justly estimate and liquidate the claims of such is one of the most intricate problems society will one day have to solve. But with this perplexity and our extrication from it abstract morality has no concern. Men having got themselves into the dilemma by disobedience to the law, must get out of it as well as they can, and with as little injury to the landed class as may be.”

The view thus set forth in *Social Statics* is the view still held by me. Here again there is no change.

(3) What then is the change? Of course when, in *Social Statics*, resumption of the land by the community was shown to be equitable and advocated as desirable, it was on the assumption that the transaction, after making compensation, would leave a balance of benefit to the community. It is clear that if I had thought that the change, though equitable, would entail a loss on the community, I should not have held that the community ought to bring this loss upon itself, but should have held that though, as a matter of abstract equity, it might properly retake possession of the land, it would be impolitic to do this if the burden of compensation would outweigh the benefit of possession. But of late years, on thinking over the matter, it has become clear to me that the burden of compensation *would* outweigh the benefit of possession, if the compensation were anything like equitable in amount. Hence I have come to the conclusion that the change of tenure from private to public would be impolitic. Respecting my original view in *Social Statics* I have said:—“Moreover, I did not clearly see what would be implied by the giving of compen-

sation for all that value which the labour of ages has given to the land."

(4) It is true that in further qualification of my original view I have pointed out (more especially referring to England) the untruth of the prevailing assumption that the existing land-owners are either those who made the misappropriation or the descendants of those who made it, and have further pointed out that among the people who are supposed to be robbed exist, in large measure, those who are the descendants of the robbers; and that thus the anger everywhere fostered is misdirected. And I have also pointed out (again in respect of England) that if anything like the proposed restoration were to be carried out, it would require that England should be handed over to the Celts of Wales and Scotland, as the only people who have any claim (though a disputable claim) to be regarded as original proprietors. It is also true that I have pointed out to how large an extent in England, since the reign of Elizabeth, the landless class has shared in the produce of the land under the Poor Law, and that therefore, if we go back upon the past, this fact must be taken into account. But all these further considerations are put in the form of difficulties in the way of a change, and are not at all held to invalidate the two original propositions—(1) that the land itself belongs to the community, and (2) that it cannot be resumed by the community without compensation for the artificial value given to it. These were my original views: these are my views still.

(5) It should be added, in further explanation, that the views originally held by me, as well as the modified views I now hold, are not, as is commonly supposed, at variance with the views held by the landed classes in

England, but, contrariwise, are views which they have themselves publicly enunciated through certain representative members of their class. The Council of the Liberty and Property Defence League, on which sit several peers and two judges, said, in their report for 1889, that "the land can of course be 'resumed' on payment of full compensation, and managed by the people if they so will it." Supreme ownership by the State is fully recognised, and the only reason urged for maintaining the existing system of land-holding is the badness of the alternative system—administration by public officials. They do not, however, name the primary obstacle to the proposed change—the enormous cost of equitable compensation, bringing to the community not gain but loss.

These representations of my views, old and new, are not matters of opinion, but are matters of fact which anybody can ascertain by referring to early editions of *Social Statics* and to *Justice*. They are there in print, not to be gainsaid or argued away.

[Here in the original pamphlet followed in double columns the extracts from Social Statics and Justice above referred to.]

Not unnaturally, those who discuss the existing land-tenure bring into the foreground the instances in which it leads to the greatest anomalies—the greatest contrasts of wealth and *status* among men. The relatively few striking facts are taken as typical of the whole system, and it is forgotten that the immense majority of the facts are not striking—present no such grievous incongruities. Land in England is not all held by dukes, earls, and baronets, though those who cherish indignation against land-owners appear tacitly to assume that

it is. Contrariwise, an immensely larger proportion of land-owners possess but moderate quantities, and those who possess small quantities are a hundred times in number those who possess great quantities. Here, from an essay on "Freedom of Land," by Mr. Shaw Lefevre, M. P.,* is a table showing this:—

1,000	persons	own	about	30,000,000	acres,	averaging	30,000	each.
4,000	"	"		20,000,000	"	"	5,000	"
10,000	"	"		10,000,000	"	"	1,000	"
50,000	"	"		9,000,000	"	"	130	"
130,000	"	"		1,750,000	"	"	13	"

If we ask—Who are those constituting a considerable proportion of these small land-owners? the answer discloses a great obstacle to that abolition of private ownership without compensation which many now urge. Fifty years ago or thereabouts arose a movement, political in origin, for the establishment of "Freehold-land Societies." The aim was to give to artisans and others of like position voting power in county elections. Estates were purchased in suburbs of large towns and cut up into portions of such size as would qualify the possessors to vote; and by payment in instalments these numerous plots were purchased by men who were in the majority of cases wage-earners. Tens of thousands of these buyers of small properties, on which in many cases they built houses, were manual workers of one or other kind—workers, most of them, proved by the result to be diligent and provident. It is true that nowadays there has grown up the notion, fostered by trade-unions, that a man who works better or longer than others and so gets more money, is worthy of reprobation because he disadvantages his competitors. But in the days when "Freehold-land Societies" were established there prevailed

* *English and Irish Land Questions*, p. 2.

the old-fashioned idea that it is meritorious to earn extra money and provide well for dependents—to make wife comfortable, educate children, and, if possible, to leave both with some provision at death: and there still remain some who think that conduct of this kind is praiseworthy. But, praiseworthy or not, here are the facts. The men who, by persistent labour or provident habits, or both, saved enough to buy these plots of land, are either now living as old men or have died and left their small properties to widows and children. Shall these small properties now be taken away and nothing given in return? They were acquired by self-denying efforts continued through long years, and with the assent and approval of all around. Neither the owners nor their fellows, nor any other persons, thought that the titles were any more invalid than the titles to furniture, clothes, and tools. What, then, is to be done? Ownership of these small plots stands on the same footing as ownership of great estates. In both cases portions of land have been purchased, if not by the living possessors, then by predecessors. No more in the one case than in the other have the proprietors or their ancestors taken the land by force or fraud; for of those possessors whose ancestors date back to the Conquest few, if any, remain. If, then, equity requires that there shall be expropriation of the large landed proprietors without compensation, it also requires that there shall be such expropriation of these small landed proprietors. Surely everyone must see that there would be much more of iniquity than of equity in such a transaction.

The beliefs implied in the foregoing pages—(1) that a reversion to public land-ownership could not justly be

effected without compensation to private owners; (2) that the making of adequate compensation would bring more loss than gain to the community; (3) that the equitable adjustment of compensation would be extremely difficult; and (4) that the administration of the land as public property by State officials would entail all the vices of officialism—by no means involve the belief that private land-ownership should continue without change. Few will deny that the possession of vast tracts by single individuals, and, in some cases, the devotion of those tracts to purposes at variance with public interests, is a great evil. It is true that the holding of land in considerable areas has, by facilitating the investment of capital and the use of improved appliances, increased the production of food and economized labour; but such advantages are better achieved on moderate estates than on great ones; no such defence can be made for possession of fifty thousand acres by a single person. But, though the vesting of a whole county in a duke is a scandal calling for remedy, a fundamental change in land-tenure is not required for remedying it. The custom of primogeniture, established in feudal times as a guarantee for the due rendering of military service to a suzerain, has long since lost its *raison d'être*. With disappearance of it would come dispersal of these inordinately large private possessions, which, tied up in single hands, are in many cases so burdened by fixed claims as to prevent the expenditure of capital on them, and are so made relatively unproductive. If, along with the abolition of this vicious system, there were enacted a rational system of land transfer, most of the glaring evils which now shock the moral sense would cease.

Of other evils incident to present arrangements one is the misuse of land. Where the land has long been in private hands there seems difficulty in imposing any new conditions of ownership. Yet the general truth that the ultimate ownership vests in the community and may be resumed on making compensation, seems to carry with it such latent power over the private owner as may fitly be used to protect public interests. The Statutes of Mortmain furnish a precedent for this interpretation. They embody an interdict on that absolute land-ownership which is assumed by permanently devoting land to purposes individually willed, but which may not be socially beneficial. And if this precedent is to be followed, then there is warranted an interdict upon those modes of dealing with land which gratify the owner regardless of detrimental effects to the community. No one can question that in territories where land has not yet been parcelled out, the community may impose whatever conditions of ownership it thinks well—conditions having in view such qualified use of the land as may duly regard the welfare alike of the present generation and of future generations. And if, in unappropriated regions, the general body of men may rightly exercise this power over individual men, it is reasonable to infer that in long-settled countries the indestructible title of the public warrants it in restraining private owners from mischievous uses of land.

But it is to be feared that the vices of officialism would negative the benefits sought. When we see that alike in despotic Russia, in constitutional Italy, as well as in democratic France and America, public agents of all grades, from ministers down to police officers, cannot be trusted—very often will not do the right thing with-

out a bribe, and will perpetually do the wrong thing when a bribe is given—we can scarcely expect public oversight of land-owners to be efficient. The required State-machinery, like all forms of State-machinery, depends for its well-working on the quality of the citizens out of whom it is framed; and where that quality is inferior, well-working of the machinery, no matter how ingenious, is impossible.

Nevertheless, many evils which cannot be cured may be mitigated. And if, as we must do, we recognize the right of the State to restrain the landlord from using his land in ways at variance with public welfare, we may at the same time hold that there are cases in which it is both politic and practicable to exercise that right.

THE METRIC SYSTEM AGAIN.

A year after the publication of the letters on the Metric System reproduced in the foregoing part of this volume, those interested in forcing forward the adoption of the system recommenced their agitation. One result was that over the signature "A Citizen," I published four more letters in *The Times* containing arguments reinforcing those before used. They appeared on March 28, April 4, 8, and 13, 1899, and are here severally numbered in the order of their appearance.

I. "This plan will be beneficial to me. Please therefore make a law forcing me to adopt it."

An absurd position; yet a position taken by the Brit-

ish merchant as represented by chambers of commerce. He says that some of his foreign transactions are impeded by his habit of using British weights, measures, and values. If he were obliged to follow the metric system, orders from certain buyers abroad would be facilitated and Customs officers at certain foreign ports would not raise the difficulties they now do.

Strangely enough these things which he wants made imperative are things he can do voluntarily. Though his business at large is carried on in British weights and measures there is nothing to prevent him from carrying on his foreign business in metric ones. Even were there a legal impediment it would be needful only, along with the actual contract in British terms, to give more conspicuously in parentheses the equivalent quantities and values in metric terms to evade it. No trouble would be entailed further than would be met by a double-columned list of equivalents at the clerk's elbow, enabling him, by simple inspection, to write out his quantities in both terms.

Either these merchants and their exponents are short-sighted to a degree that passes comprehension, or else they ascribe to the British public a stupidity greater than is warranted. If, otherwise, they are too idle or too unenterprising to take the trouble needful for convenienceing their foreign customers, and if, consequently, they lose business and are in danger of going to the wall, then the comment is—Let them go to the wall. We shall not benefit by an increasing population of incapables.

But now comes the marvellous fact. That these exporters may be forced to adopt a system which they say would be advantageous, and which they can adopt

without being forced, all other people must be forced to adopt it too. The entire process of retail business must be revolutionized that their wholesale business with certain foreign countries may be done with less friction.

It is undeniable that, affording smaller facilities for division into aliquot parts, the metric system would be inconvenient for both buyers and sellers of small quantities. Nineteen-twentieths of the trading transactions throughout the kingdom are in shops, hotels, and taverns, and of these many would be hindered, while few, if any, would be made easier. Nor is this all. These idealogues say to the vast populations of traders, "You must change all your implements for dividing out quantities." Along with wholesale dealers and large shopkeepers, the publicans and hucksters throughout hundreds of towns and thousands of villages are to throw away their old appliances and get new ones; while they and all their customers must go to school again that they may learn fresh ways of making their exchanges.

And this introduces the political aspect of the matter. Ten thousand persons intend to make 20 million persons change their habits. The ten thousand are the men of science (by no means all), the chambers of commerce, and the leaders of some trade unions—leaders only, for the question has never been put to the vote of the mass. The 20 millions are the men and women of England with those children who are old enough to be sent shopping. Ten thousand is an over-estimate of the combined bodies who are forcing on the metric system, and 20 millions is an under-estimate of the numbers to be coerced.

"But the change is to be enacted by Parliament," it will be said. True, by a Parliament which has received

from the people no authority whatever to enact the change. It came into power to oppose Home Rule and the local veto, not a word in any constituency having been said about changing weights and measures, and the proposed revolution never having been dreamed of by electors. And now, not having in any way consulted the nation, it is proposed that Parliament shall make a change which, if put to a *plébiscite* or the *referendum*, would bring millions of "Noes" amid which the few "Ayes" would be utterly lost.

"Yes, but we know better what is for the people's good than they do, and we will force them to adopt it." Exactly. That was the reason assigned in past times by the Pope and his priests, who, to secure the eternal salvation of men, forced on them prescribed beliefs. And this secular popery, like the sacred popery, assumes infallibility; since nothing less than infallibility could warrant any body of men in dictating to all mankind for all time. For once universally established, the metric system could never be changed.

And this is to be done among a people who say they are self-governed!

"But surely it is not needful that electoral approval must be had for every detail of legislation?"

"Detail!" Yes, that is the word. We are to regard the forcible changing of all men's and women's daily habits as a detail! It is not denied that under our system of government the consent of the nation must be asked for all legislative changes of importance. When, for instance, a recent Ministry went to the country on the question of Home Rule for Ireland, and when, having obtained a majority, Mr. Gladstone contended that he had the "mandate" of the electors, there was a suffi-

ciently clear expression of this principle. Now ask any number of electors and their wives (and their wives, who do most of the buying, have surely to be considered) which most interests them—a measure according Home Rule to Ireland or a measure obliging them to change their ways of buying and selling. Can any one doubt that from the many millions of shopkeepers and their customers would come the reply that they cared little about Home Rule and much about their trading conveniences from hour to hour. Considered in relation to its influence upon people's lives this proposed change in methods of buying and selling is of more importance than nine out of ten of the nominally great questions on which the national will has to be consulted.

If the metric system is established in the way its advocates intend, it will be by deliberately trampling on the representative system.

II. "S.A.M.," who quotes the estimate that "two years of a child's schooling would be saved by the complete adoption of the decimal system," and says that he "cannot judge whether this is an over-estimate or not," discredits his own judgment so profoundly that it seems hardly needful to weigh his arguments. Turning to the letter of "An Engineer," let me first comment on his remark that trading transactions are not impeded by the decimal system because quarters can be made by using coins and measures representing 0.25. The reply is that, if so, the metric system is justified by departing from the metric system. Decimals know of no quarters, and if the metric system takes two-tenths and five-hundredths that it may make a quarter, it simply adopts a division foreign to it and confesses its unfitness.

Unhappily, when discussions like the present are revived after a few years, facts and arguments before assigned are forgotten, and the work has to be done over again. Let me here in brief space indicate the leading points brought out in *The Times* three years ago.

1. Mankind have abandoned for industrial and trading purposes that decimal notation which they have literally at their fingers' ends. Though the mode of counting suggested by their two hands remains in use for calculation, they have everywhere fallen into other modes for purposes of production and exchange. Why is this? Surely they did not give up the ready-made system for other systems without reason. That reason was the need for easy divisibility.

2. Alike in the earliest times and in the latest the wish for easy divisibility is shown. Those "wise men of the East," the Chaldeans, to whom we owe so much, adopted a sexagesimal notation which, while meeting other needs, presented the advantage that 60 has more varieties of aliquot parts than any other number. It will divide by 2, 3, 4, 5, 6, 10, 12, 15, 20, and 30. The choice made by these early men of science is paralleled by the choice which modern men of industry have made. The foot-rule, ordinarily so divided that each of its inches has halves, quarters, eighths, and often sixteenths, presents, when taken as a whole, ten different sets of aliquot parts. It divides into $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{8}$ ($1\frac{1}{2}$ in.), $\frac{1}{12}$ (1 in.), $\frac{1}{16}$ ($\frac{3}{4}$ in.), $\frac{1}{24}$ ($\frac{1}{2}$ in.), $\frac{1}{32}$ ($\frac{3}{8}$ in.), and $\frac{1}{48}$ ($\frac{1}{4}$ in.). Yet now extreme divisibility, sought alike by ancient thinkers and modern workers, is to be disregarded, and we are to take as a basis for our system of weights, measures, and values a number which is divisible only by 2 and 5!

3. These lessons derived from practice extending throughout the ages are verified by practice going on under our eyes. The Americans have a decimalized money-system—dollars, dimes, cents. Do they use it? In large measure they abandon it. You do not see prices of books in dollars and dimes. Prices are quoted as \$1.25, \$1.75, &c.—that is to say, dollars and quarter-dollars and three-quarter dollars are used: the quarters and three-quarters being expressed in a roundabout way by tenths and hundredths. Nor is this all. Whether it is still so I cannot say, but years ago the usage in California was to state prices in “bits”—about the eighth of a dollar (a division unknown to the metric system)—a “long bit” being 15 cents and a “short bit” being 10 cents. No change was given either way if the price did not fit: the system produced indefinite prices. Still more striking is the fact that, in the very focus of business the New York Stock Exchange, the decimal division of money is ignored—prices are in dollars, halves, quarters, and eighths. (In the English Stock Exchange List the method of halving and re-halving goes down habitually to sixteenths, and sometimes to thirty-seconds.) Thus the facts prove that even where it is established, the decimal system as applied to money is supplanted by another. All that legal enactment does is to complicate and confuse matters.

4. The aim of the metric system is an ideal uniformity—a good aim if it can be achieved with greater benefits than evils. I yield to none in the love of method and system; but a system which, even if otherwise good, proposes to make an immense revolution to effect a symmetrical arrangement and does not effect it, is to be rejected. Observe the facts:—

First.—The metric system does not fit our time-measures, natural or artificial. We have twelve full moons in a year and cannot make ten months agree with them. Further, the division of the year into quarters, involved in our social arrangements, has also a natural basis—the equinoxes and the longest and shortest days are fixed astronomical facts incongruous with numeration by tenths. Second.—Our artificial divisions of time into 12 hours and twice 12 hours cannot be changed. Even could astronomical and nautical tables be all revolutionized, it would be impossible to make people replace their clocks and watches by decimalized ones. Third.—The division of the circle must remain as it is. An attempt to decimalize the quadrant (which itself was inconsistent, since a fourth is not a decimal division) has failed; so that all calculations, astronomical and terrestrial, into which degrees, minutes, and seconds enter, will continue outside the system. Fourth.—A kindred obstacle is presented by the compass, the divisions of which are made by halving and re-halving. Here nature again dictates. The four cardinal points, corresponding with four right angles, cannot be changed.

And now observe that the metric system, which would be bad by its incompleteness, even if otherwise good, is to stand in the way of a system which would be congruous with our established divisions, natural and artificial. These astronomical twelfths and fourths, along with these fourths we have in the divisions of the circle and the compass, as well as the twelfths we have in our conventional time-divisions, all harmonize with a system of notation having 12 as a basis. The halves, quarters, eighths, twelfths to which men have in many

ways gravitated in their weights, measures, and values coincide with various divisions which nature has imposed, and we have but to take 12 as our fundamental number, using two additional digits for 10 and 11, to bring into harmony these natural and artificial divisions, without any sacrifice of those facilities for calculation which decimals at present give.

Such a change is pooh-poohed as impracticable, and so it may be at present, though learning the implied new notation in schools does not seem much more difficult than learning the metric system. But, granting the present impracticability, is it rational to infer that what is impracticable now will always be impracticable? Does not experience teach us that the impossibilities of one century become the facilities of the next? See what a remote descendant might say of us, should the metric system be forced on in the belief that because a better system cannot be established now it can never be established:—

“ What hide-bound imagination these men of the 19th century had! With all the past to teach them otherwise, they thought that things beyond their own achievement must always be beyond achievement. They knew that to early men the communication of knowledge by writing was inconceivable; they knew that, after men had learned to write, the communication of knowledge by printing was for long inconceivable; they knew that, after the communication of knowledge by printing had become familiar, communication of it by telegraph was inconceivable; and they knew that, after telegraphing had become habitual, it remained inconceivable that there could be telegraphing without wires. Yet with such facts before them they assumed that posterity would be able to do no more than themselves, and insisted upon prescribing methods for carrying on their

daily lives. Instead of leaving things as plastic as possible, so that the greater knowledge and higher capacity of the future should meet with the fewest obstacles to improvement, they deliberately made them rigid, so that now the difficulties in the way of a better method are insuperable!"

III. The large space you kindly allow me will not permit of full answers to all opponents. A few words on each point must suffice.

To the question "Why have almost all civilized nations on earth" adopted the metric system, I reply that no nation, civilized or uncivilized, has adopted it. It has been adopted by Governments and forced on the people by bureaucracies. No people has ever been asked for its assent. Even the French did not adopt it (so far as they have adopted it) until they were compelled.

If we have not followed the example, it is because the will of the people here (as also in the Colonies and in America) is more respected and cannot be so easily overruled by statesmen and officials.

As to the evidence of our Consuls, &c., I should like to know the amount of that evidence through other sources than the Decimal Association. But it has been repeatedly pointed out, and was acknowledged by Mr. Ritchie, that manufacturers and merchants may easily carry on their foreign business in the metric system if it is requisite. If they lose business because they and their clerks cannot, with the aid of a double column of figures, state their quantities in either denomination, then, as I have said, they ought to lose business.

To the question whether other nations have expressed the wish to return to their old systems, the reply

is that they are practically without voices. Among nations less disciplined in freedom than ourselves there is scarcely a thought of resisting *l'administration*.

Remembrances of my boyhood lead me to deny the alleged "enormous time and worry" involved by our present system to teachers and children, and also lead me to pity the children who now, by order of the educational authorities, are subjected to the "enormous worry" of learning both systems.

Turning to the letter of "Engineer," I have first to remark that he misunderstands me in a way I could scarcely have believed. I said that, while the decimal notation "remains in use for calculation, they [mankind] have everywhere fallen into other modes for the purposes of production and exchange." He appears to think that I referred to the present state of things, under which many peoples have been coerced into using a decimal system of weights and measures; but, obviously, I referred to the habits fallen into by civilized peoples since the dawn of civilization long before the metric system was heard of—habits proving that everywhere they had, for weights, measures, and values, abandoned the 10-system of notation, and adopted systems characterized by easier divisibility. If decimal divisions were already in use, where was the place for the metric system?

The metric system recognizes only units, tenths, hundredths, thousandths; all other divisions are foreign to its principle. Quarters, and very often eighths and sixteenths, are found to be imperative. If the metric system makes a quarter by taking two-tenths and five-hundredths, and an eighth by taking one-tenth, two-hundredths, and five-thousandths, "Engineer" may think

it satisfactory for purposes of daily exchange, but others do not; still less do others think it satisfactory that the metric system gives no exact third in any way.

“Engineer” appears to think it of no consequence that, in the American focus of business, the decimal divisions of money are ignored, and quarters, eighths, sixteenths, &c., used, and that there should thus be necessitated a mixed system, though a main purpose of the metric system is to establish uniformity.

“Engineer” says he is “required to work in steel to the thousandth of an inch.” Inadvertently, he thus betrays his cause. An inch is not a denomination known to the metric system. When Whitworth introduced and established his gauges, he did not choose as his unit the decimetre or centimetre, but our familiar twelfth of a foot. Having, in view of the accuracy he desired, to name minute divisions, he chose hundredths and thousandths, for the sufficient reason that no names for other minute divisions exist. But now see what has happened. His standard gauges have spread everywhere, and in countries where the metric system is followed there is added another anomaly to those already pointed out—a set of divisions outside the metric system, and which will continue outside of it.

But all these discussions are beside the essential question—whether the change is desirable for the carrying on of retail transactions, enormously exceeding all others in number; and, whether, even could advantages be shown, they would be great enough to warrant the immense trouble and confusion entailed.

My opinion is that, should the attempt ever be made to force it on the English people, not so submissive as the

Continents, the resistance will be so determined that the attempt will have to be abandoned.

IV. I regret having once more to trespass on your space, so liberally allowed to me; but your correspondent "Another Citizen" has so confused matters that I cannot willingly remain silent.

Controversies in general, and this one in particular, would sooner end if opponents would reply to things said, instead of replying to things not said.

I did not say that the metric system "was adopted by Governments" "for no earthly reason." Governments when adopting it, and forcing all buyers and sellers to use it, doubtless thought they were doing a good thing, as have, very generally, the most despotic Governments when enacting this or that coercive law. My assertion was that the assent of the people was in no case asked, and this I still assert: holding that the case of the French people themselves, who did not use the metric system till they were compelled, sufficiently shows this. Will "Another Citizen" name any country where the metric system has been put to the popular vote?

Respecting the reports of Consuls, dwelt on by the Decimal Association, will he say how many reports of Consuls make the alleged complaint as compared with those which make no such complaint? Surely he is aware that those who get up cases praying for legislation select evidence supporting their contention, and say little or nothing about the rest. What do the disputes of political parties show us every day?

He says I propose that "our traders with foreign parts should keep a duplicate set of books"—a mon-

strous misstatement, which he could not have made had he read, with any attention, the letter to which he replies. Or, is it that, having read it, he could not understand it? Surely it is simple enough. Surely he can see that if you write a column of figures, 1, 2, 3, &c., standing for francs, and then another column, in which, opposite each number of francs, is stated the equivalent in shillings and pence, such a double column will enable a clerk to say on the instant what number of shillings and pence is equivalent to 58 francs, or 74 francs, or any other number of francs. And surely he can see that, in the same manner, a double column of English yards on the one side and the equivalent metric lengths on the other, and so on with weights and liquid measures, would enable the clerk on the instant to turn any quantity in the one denomination into its equivalent in the other, and so enable him, without any trouble, to write out his invoices, or his labels, or his orders in either denomination. Moreover, "Another Citizen" forgets that this conflict of weights and measures, which is said to impede our merchants and manufacturers in their foreign trade, does not impede the German merchants and manufacturers who invade our home markets. They adjust their quantities and prices to English requirements; nay, they even make for us, at a cheaper rate than we do, our own measuring instruments, foot-rules, thermometers, balances of various kinds. If English merchants and manufacturers will not similarly adapt their doings to the requirements, then I hope the Germans will take their places.

Respecting economy of schooling, if I am told that the metric system would save two years of a boy's time, then I shall continue to regard that as grossly

untrue, however many schoolmasters and inspectors affirm it.

But all these questions are beside the essential question, which is, whether, to convenience some thousands of wholesale traders, the many millions of English people shall be forced to change their daily habits.

PUBLISHING ON COMMISSION.

A controversy carried on in *Literature* at the beginning of 1899 respecting the relations between authors and publishers drew from me the following letter, which appeared on February 4, giving my own experiences. I reproduce it here partly for the instruction of fellow-authors and partly because it is as well that the public at large shall have information on such matters.

Unable or unwilling to follow “A Publisher” through business details, some of your readers may be glad to have a test by which to judge his statements. I can furnish them with a simple one. He quotes from Sir Walter Besant’s book the following passage describing the “method of the future”:

“He [the author] will appoint an agent or distributor, to whom he will pay a commission. He will take upon himself the printing and production and advertising. He will himself incur the risk, if any, of a loss on the first run of the book.”

“A Publisher” thereupon proceeds to ridicule the proposal, and, drawing sensational pictures of the poor author and the rich author, makes it, as he supposes,

manifest that it will not do for either. The reply is simple. The method is that which I have pursued for the last fifty years, and with the most satisfactory results. This may be judged from evidence I gave before the Copyright Commission which sat in 1877. Here is the relevant passage:—

Then the Commission understand that your books are now remunerative?—They are now remunerative, and for this reason: As I have explained, I had to publish on commission. Commission is a system which, throwing all the cost upon the author, is very disastrous for him if his books do not pay, and, as you see in this case, has been very disastrous to me; but, when they do pay, it is extremely advantageous, inasmuch as in that case the publisher who does the business takes only 10 per cent., and the whole of the difference between cost and proceeds, minus that 10 per cent. [and the trade-allowances], comes to the author. I have calculated what are my actual returns, on two suppositions. I have ascertained the percentage I get upon 1,000 copies, supposing that I set up the type solely for that 1,000 copies—supposing, that is, that the cost of composition comes into the cost. In that case I reap $30\frac{3}{4}$ per cent. [on the advertised price]. But I reap much more. I was sanguine enough, when I began this series of books, to stereotype. The result is that now I simply have to print additional thousands as they are demanded. If I suppose the cost of composition and stereotyping to have been paid for the first edition, and only estimate the cost of paper and printing in the successive editions, then I am reaping $41\frac{3}{4}$ per cent. The actual percentage, of course, is one which lies between those two; but, year by year, with each additional thousand, I approach more nearly to the limit of $41\frac{3}{4}$ per cent. I should point out that the result of this is that I receive, as may be supposed, a considerable return upon the moderate numbers sold.

My publishers, Messrs. Williams and Norgate, answer completely to Sir Walter Besant's description of distributing agents. I do my own business with printers and paper-makers and binders. The printers keep my stock and are accountable to me for every copy. When more copies of any work are wanted for sale, the publishers intimate the fact to me, and I send a requisition to the printers to furnish a hundred more copies to the binder, who hands them to the publishers. The advertising, too, is directed by me; alike in respect of the numbers of advertisements, the times at which they shall be issued, and the periodicals to which they shall go. So that my publishers are simply agents for distribution, receiving a commission for their work. As to the trouble entailed on me, I have not found it worth mentioning when compared with the benefits gained.

It is doubtless true that the entirely impecunious author cannot avail himself of this system. It is doubtless true, also, that the unknown author or the author of an unattractive book, whose resources enable him to adopt the system, is liable to suffer loss. The losses I suffered myself were great and continued for many years. But in such cases the choice is not between publication on commission and some other mode of publication. The choice is between publication on commission and no publication. In early days no book of mine was accepted by any publisher. He would risk neither purchase, nor half-profits, nor royalty: judging, rightly enough, that he would be a loser under any arrangement. It is not, therefore, that the commission system is in such cases disastrous, but that publication in any way is disastrous. But for an author who has made a position and

can count on a public, the system is, as the above facts show, far better than any other.

“A Publisher” says that “publishers care not a rap for undertaking books on commission.” The confession is significant. They “care not a rap” for moderate and fixed profits. There are exceptions, however. The late Mr. Williams carried out loyally for many years the arrangement I have described, without demur or any sign of dissatisfaction. He was content with his 10 per cent. commission and such small extra profits as trade customs give. The arrangement continues with no sign of dissatisfaction from his son, who is, I believe, far from wishing to end it.

A STATE-BURDEN ON AUTHORS.

As the first of them shows, these letters, published in *The Times* for February 9—16, 1898, respectively, were drawn forth by the erroneous representation of a publisher that the cost of books required by law to be presented to five public and *quasi*-public libraries is borne by the publisher: an allegation which is true in but a small proportion of cases.

The protest of Mr. Marston is timely, and would be altogether worthy of endorsement did it rightly represent the incidence of the burden he complains of. But (excluding non-copyright books) the burden is not borne mainly by the publishers; it is borne in chief measure, and often wholly, by the authors.

It is borne indirectly by the authors in all those cases where there is sold the copyright of an edition, or where

there is an agreement to pay half-profits or a royalty; for in all such cases the publisher, in estimating the expenses of publication, sets down the gratis copies to be distributed, including among these the copies for the public libraries. This is one of the items which together form a total on the basis of which the amount offered to the author, under either form of publication, is calculated. And hence, whatever burden the cost of the five copies may be to the publisher, that burden is practically transferred to the author when settling the terms.

But the burden falls directly upon the author in all cases of publication by commission. In the publisher's accounts the author is debited with the five copies, as he is with all gratis copies distributed on his behalf. The tax is levied by the nation on him whether he makes anything by his book or not, and no less when it entails on him a loss. During the first 12 years of my literary life every one of my books failed to pay for its paper, print, and advertisements, and for many years after failed to pay my small living expenses—every one of them made me the poorer. Nevertheless, the 40 millions of people constituting the nation demanded of the impoverished brain-worker five gratis copies of each. There is only one simile occurring to me which at all represents the fact, and that in but a feeble way—Dives asking alms of Lazarus!

The second letter ran as follows:—

Will you allow me space for a few remarks on Mr. L——'s letter?

Mr. L—— rightly says of the required gifts to libraries that "the cost of the few additional copies is in

most cases trivial." To Mr. L—— it has always been so, and it is so to me at present; but it is not so to the struggling author, with whom for long years it is a question whether he will sink or swim. Moreover, his first loss is the parent of a second and larger loss. The few copies which the State takes from him are used by it to intercept the buyers of many copies. After the year of grace during which his book is withheld, numbers who would otherwise purchase it read it at the Museum library, and, already a loser, he loses much more.

While agreeing with Mr. L—— that facilities for literary research are very desirable, I do not agree that they can be achieved only through public institutions. Fifty odd years ago some men of letters and others (Mr. Carlyle being a chief mover) set up the London Library for the purpose of facilitating research, the British Museum library failing in sundry respects to meet their needs. From the London Library books may be taken home; 15 may be had out at a time, and if any book a student wants is of appreciable value it is bought for him and afterward put on the shelves. The library has now 175,000 volumes and grows at an increasing rate. Of course it is far from all-embracing. But, had there existed no public libraries; had the felt need prompted establishment of it a generation or more earlier; had its claims then become widely known, as they would; had it received, as it now does, gifts of books and of private libraries, as well as probably donations and bequests of money, it would by this time have gone far to fulfil all the requirements. It is true that we have not, like the Americans, millionaires who found universities or build magnificent observatories. Still there are instances of

the required public spirit; and when we learn that in 1890 charitable bequests reached over £1,000,000, that within the few preceding years bequests for art galleries and collections had reached over half-a-million, and that London and Edinburgh and other places have recently witnessed kindred gifts, it is not an over-sanguine calculation that, under pressure of the need, an institution like the London Library, earlier founded, would before now have grown to vast proportions, quite meeting the want, and would have accumulated a fund (£200,000) the interest of which would suffice to purchase copies of all new works.

But now from this side issue let me return to the main issue. Grant that to facilitate literary research there must be public libraries. Does it follow that these must be recruited by copies of all new works taken from their authors under penalty? Is it not possible that copies may be bought? Admit the want, and the first question arising is—By whom shall the cost of satisfying it be borne? Shall the public who profit by the books bear it, or the authors who have laboured to produce the books? Shall the tax be paid by the many millions benefited, or by the few hundreds who benefit them? As implied above, I accept neither alternative. But, assuming that one must be accepted, then I say that in equity the burden should be borne by the State with its hundred millions of revenue, and not imposed on a small class of men, most of them needy and many of them passing their lives “in shallows and in miseries.”

THE SOUTH-AFRICAN WAR.

Of the following three letters the first, addressed to Mr. Leonard Courtney, was read at a large meeting held at Manchester just before the opening of the war, and the other two were published in journals, daily and weekly. I reproduce them here as permanent records of my feeling respecting a war by which Great Britain has been discredited in every way—discredited in its intelligence, since a task regarded as small and easy has proved to be a task costing more in men and money than was ever before expended in the space of a year—discredited in its military capacity, since two-hundred-thousand trained soldiers have been required to conquer thirty to forty thousand untrained burghers—discredited in its honour, since, after disclaiming the desire for goldfields and territory it has taken both—and further morally discredited, since its character for love of liberty and desire to maintain the freedom of small nationalities has been for ever lost.

The letter to Mr. Courtney ran as follows:—

I rejoice that you and others are bent on showing that there are some among us who think the national honour is not being enhanced by putting down the weak. Would that age and ill-health did not prevent me from aiding. No one can deny that at the time of the Jameson Raid the aim of the Uitlanders and the raiders was

to usurp the Transvaal Government. He must be wilfully blind who does not see that what the Uitlanders failed to do by bullets they hope presently to do by votes, and only those who, while jealous of their own independence, regard but little the independence of people who stand in their way can fail to sympathize with the Boers in their resistance to political extinction. It is sad to see our Government backing those whose avowed policy is expansion, which, less politely expressed, means aggression, for which there is a still less polite word, readily guessed. On behalf of these the big British Empire, weapon in hand, growls out to the little Boer Republic, Do as I bid you. I have always thought that nobleness is shown in treating tenderly those who are relatively feeble, and even sacrificing on their behalf something to which there is a just claim, but, if current opinion is right, I must have been wrong.

The following is from *The Morning Leader* for February 5, 1900:—

If *The Morning Leader* will give a voice to those who would check the anti-social spirit now dominant it will do good service.

The crowds who shouted to the departing troops “Remember Majuba!” displayed the same passion as the lowest savages who make blood-revenge a primary duty. And the pride of mastery which prompts the Indian to wear as a trophy the scalp of his fallen foe, is the same in nature as that which will hear of nothing less than taking the chief city of a conquered nation. Is the sentiment of the prize ring—“I am stronger than you are”—so very noble?

A letter to *The Speaker* for January 13, 1900, ran as follows:—

Now that those who think that mastery at any price is the noblest ambition have succeeded in silencing nearly all organs of dissentient opinion, I rejoice to see that there is at least one such organ still faithful to the traditions which, in happier days, distinguished in some measure the conduct of England. *The Speaker* is an Abdiel remaining loyal to high principles, upholding “through hostile scorn” a just and humane policy.

I fear there is little to be done by appealing to those whose thoughts are exclusively of “British supremacy,” “British interests,” “British *prestige*,” “British pluck.” Still it is well that everything should be done which can be done, and I applaud the energy and resolution with which *The Speaker* is seeking if not to change yet to moderate the passions now dominant.

AN INHUMANITY.

The following appeared in *The Times* for July 25, 1900, under the title “Lobsters.”

How is it that the Society for the Prevention of Cruelty to Animals and the Anti-Vivisection Society do not join their forces for the purpose of putting down by some means the horribly cruel practice of boiling lobsters alive? The fishmongers throughout England every day inflict far more torture than is inflicted by all the experiments of physiologists in the course of a year.

There is no such excuse for it as that made for the infliction of pains by sportsmen. It is not an accompaniment of certain pleasures, and it is not incident to the

obtainment of food. It is an absolutely superfluous cruelty.

Sympathizing as I do with some who carry their protests so far as to refuse to eat lobsters, I was led some time since to consider how the evil might be dealt with. Certain experiences of my salmon-fishing days recurred to me. I remembered that after a salmon had been landed a blow on the back of its head from a heavy stick or a good-sized stone, held in the hand, sufficed to cause death: the shock given to the brain arresting its function. Would not the same thing happen if the chief ganglion of a lobster were subject to a like shock? Experiment verified the inference that it would. Since then my cook always kills a lobster by striking it on the carapace just behind the eyes, where the chief nervous centre is seated; ordinarily using a rolling-pin, which is a sufficiently heavy implement always at hand. A thud given by this is instantly fatal.

Legislative coercion is not needful to enforce adoption of this method. The blow required produces a more or less marked fracture of the carapace, and if all who are humane enough to trouble themselves about the matter refuse to buy lobsters which do not bear this mark, they may, after a time, put an end to the barbarity. It is true that the fishmongers may persist in their usual practice, and make this fracture after the boiling, alleging either that their customers do not like a damaged shell or that the water which oozes through the cracks injures the flesh—a perfectly baseless statement, as I can testify. Should there arise any such obstacle it may be met, either by having the lobster killed in presence of the buyer, or by having it sent home alive and leaving the cook to kill it.

APPENDICES.

A SOLUTION OF THE WATER QUESTION.

To nearly all my readers I am known simply as a writer of books: only a few knowing that the early part of my life was passed as a civil engineer. Hence to the great majority the inclusion, among the foregoing fragments, of one dealing with an engineering question would have seemed very anomalous; and for this reason I have thought it best to include it in an appendix, containing fragments not likely to appeal to those who may feel some interest in the rest. It was written in 1851, when but five years had elapsed since engineering matters mainly occupied my thoughts, and when they still continued occasionally to do this. Its date was December 20, 1851, and it was published in the *Economist* newspaper when I was engaged on that journal. Some of the difficulties standing in the way of the scheme at that time have since disappeared.

Of the many possible modes of supplying London with water, there is one which has not yet been proposed. It is extremely simple and economical; and, I think, offers the readiest escape from the perplexities with which the matter is at present surrounded.

A scheme is already before the public for providing the metropolis with water from Henley-on-Thames. This water, in which a white pebble is visible at the depth of five or six feet, will, I presume, be held unobjectionable in quality, and that it is abundant in quantity needs no proof. Could it then be brought to London without the vast expense of the pro-

posed aqueducts, and could it be distributed without a new system of pipes, every important desideratum would be fulfilled. Let us consider whether this is not possible. Let us inquire what causes prevent the Thames at London from being as pure as the Thames at Henley, and whether these causes are not removable.

The Thames is vitiated—firstly, by the sewage of the numerous small towns on its banks lying between Henley and London; secondly, by the sewage of London itself; and thirdly, by the stirring up of the mud consequent upon the flux and reflux of the tide.

To intercept the sewage of these intermediate towns would be a matter of no difficulty. Having before us the example of Edinburgh, and knowing what the Metropolitan Sewage-Manure Company are daily doing, it is obvious, that did there exist a sufficient motive, it would be easy to use up the sewer-water of each of these places in irrigating the surrounding districts.

As for the sewage of the metropolis, it may practically be left out of the question, seeing that, on carrying into execution the adopted drainage scheme, this sewage will be delivered so far down the Thames as not to contaminate the water of London.

The third cause of impurity—the flux and reflux of the tide—is the only one that remains; and we now come to the question—May not this be stopped? I think there can be little doubt that it may. By throwing across the Thames near London (say at Chelsea) a weir, similar to, but much larger than, those which repeatedly occur, higher up the river, and by accompanying this weir with one, two, or more locks to admit of the passage of the small steamboats and barges that ply above Chelsea, the desideratum might be achieved without great cost, and without entailing any appreciable inconvenience. It is true that damming up a tidal water-way is by no means so easy a matter as damming up an ordinary river-channel. But, whilst quite conscious of the difficulties to be met, I do not think it rash to assume that modern engineering

skill would be competent to meet them ; especially since hearing from a gentleman now engaged in building bridges over two tidal rivers, that such a dam is practicable.

Taking for granted, however, its practicability, let us consider what the results would be. The sewage of Reading, Maidenhead, Windsor, &c., having been blocked out ; the sewage of London having been provided with a discharge some ten miles below the dam ; and the dam having been closed, it is manifest that the whole of the Thames above the dam would presently become clear. That mass of muddy fluid which now daily flows backwards and forwards as high as Kew would gradually escape over the weir, and its place would be taken by the water from the upper Thames ; and, as this would have received no contamination in its progress, it would, for anything that appears to the contrary, be as pure at Chelsea as at Henley. Possibly it will be objected that the deposits of mud which constitute the bed of the Thames above London would still destroy the clearness of the water. This, however, is an error. The Thames at Henley and above runs over a bottom as muddy as that which it runs over here ; yet is not dirtied by it, simply because from the constant recurrence of dams the stream is slow ; and as under the proposed arrangement the water-way at Chelsea would, in proportion to the water passing through it, be far greater than at Henley, the current would be still slower than there, and the disturbance of the bottom even less. Should it be urged that the mud would be stirred up by the passage of river-craft and especially steamboats, it is replied that with a constant depth of some twenty feet of water, vessels of such small draught as those plying above Chelsea would produce no such effect.

Turning now to the advantages offered by this project, it is obvious that all the Water Companies now drawing their supplies from the Thames—companies against whom the loudest and most justifiable complaints are made—would, under the proposed arrangement, be presented with an abundant source of pure water. The works and pipes of some of them would serve as heretofore without alteration ; and, by an underground

east-iron conduit, each of the other works might readily be connected with the water above the dam at but moderate expense. And should the quantity they can jointly supply be ultimately found insufficient, their distributing organisations could be enlarged or additional ones formed with far less outlay than would be needed to bring and distribute water from one of the proposed new sources.

As above implied, changes made since 1851 have rendered the project much more practicable than it then seemed: sewage has been stopped out. An incidental benefit not named may be here added. Were the tidal stream arrested at Chelsea—were there none of that rush now entailed by the filling and emptying of the river channel from Chelsea to Richmond and above, the movement of the water through London, and especially above London Bridge, would become relatively slow. To fill the space between London Bridge and Chelsea in the course of six hours, would require a current so gentle that it would not stir up the mud. And this space, becoming after a few months filled exclusively by the clear water of the upper Thames discharged over the Chelsea weir, would be rendered practically pure. This advantage would be still more effectually achieved, however, were there carried out the more ambitious scheme which the letter went on to propose, and which was as follows:—

There is an extension of this scheme which seems to me well worth discussing. It would achieve several important desiderata, and though open to what seems at first sight a serious and even fatal objection, will, I think, on calm consideration, be found feasible. The plan I refer to is—damming up the river below London instead of above. By throwing across the Thames, say at Greenwich, a weir such as that mentioned above, and by accompanying this weir with a group of locks,

placed side by side, *sufficiently numerous to admit of the simultaneous passage of many vessels*, several additional advantages would be secured without great cost and without entailing any serious interruption of traffic.

1. The whole of the Thames between London Bridge and Greenwich would be turned into a vast dock, always full up to the level of spring tides. Vessels entering at all times might immediately be laid alongside the wharfs or taken into the existing docks without having to wait, as they frequently now do, for more water. Affording constantly throughout its whole width a sufficient depth for ships of ordinary draught, the river channel would practically be rendered broader, and its centre, being less occupied, would be more available for the general traffic than at present.

2. The shelving banks of mud, which are now, during the greater part of every day, left more or less bare, and which, from exposure to the sun and air, are constantly sending up noxious exhalations along the whole course of the river both above and below bridge, would be permanently covered; the decomposition now going on would be stopped, or nearly so; and an increase of salubrity would result.

3. A great improvement to the appearance of the metropolis would be a further consequence. In place of the disgusting current now ever running backwards and forwards through a dirty half-empty channel, which, instead of being an ornament to London, is an eyesore, we should have a clear, pure lake always full.

4. The Thames bridges would no longer be endangered. Already the foundations of two of them have been undermined by the rapid current, and I have heard the opinion expressed by an engineer that Waterloo Bridge will ultimately share the fate of the Blackfriars and Westminster Bridges should its piers continue subject to the same scouring action of the tide. Were the proposed scheme carried out, no such catastrophe need be feared.

Against these advantages the only obvious set-off is the hindrance that would occasionally occur in the entrance and

exit of shipping. This will be found, on examination, a less formidable difficulty than it looks. It must be remembered that a great number of the ships entering the Thames, and those, too, ships of the largest class, go into the East and West India Docks. Were the dam placed about Greenwich as proposed, these ships would be uninterfered with. On those vessels passing up to lie in the Pool, or to enter the London, St. Katharine's, or Commercial Docks, and on those passing down from these places, the going through the locks would entail a certain delay. By having the locks numerous, however, (and the shore of the Isle of Dogs might be trenched upon to make room for ten or a dozen if need be,) this delay would not, at ordinary times, exceed the five or ten minutes required for transfer from one level to the other. And even when many vessels, detained by adverse winds, were coming up the river in a crowd, ten or a dozen locks would dispose of those proceeding into the Pool with tolerable celerity. It should be borne in mind too, that even now vessels must be delayed on reaching the Pool; *for they cannot sail through the Pool in a fleet, nor all get into the docks at once, nor be unloaded together.* Evidently, therefore, were they passed through the locks as rapidly as they could be disposed of on reaching the Pool, no real hindrance would occur.

Should it, however, still be thought that some loss of time would occasionally be inevitable; and should it even be considered that the facilities obtained by turning the Thames into a dock would not compensate the shipping interest for this; it is nevertheless argued, that offering as it does a still more satisfactory and economical solution of the water-question—promising to greatly increase the salubrity and beauty of London—and holding out a guarantee of safety for the Thames bridges, the project presents advantages which far more than counter-balance any possible mercantile inconvenience.

The Thames through London would not only become a “clear, pure lake always full”: it would become something more. Above London Bridge such parts of its shores as were

not used for wharves might readily be made the shores of an ornamental water; and its calm bright surface would become one on which the pleasures of boating might be everywhere enjoyed. Attached to the downward sides of the piers of various bridges would soon be established floating baths like those on the Seine at Paris, but containing swimming baths as well as hot baths; and to other piers floating cafés and restaurants might be attached, which would be extensively patronized during the fine months of the year. And then in winter, the surface being calm and therefore quickly frozen, would furnish an immense area for skaters: below Chelsea parts of it not disturbed by steamboats being thus available and above Chelsea the whole of it being thus available. In short, besides its resulting increase of salubrity, the Thames would be made a centre of attraction instead of the contrary.

THE BOARD OF TRADE AND RAILWAY STATION BOARDS.

The following fragment, like the preceding one, is so incongruous in subject-matter with those forming the body of the volume that it has seemed best to relegate it to an appendix. The inclusion even here of a letter dealing with a matter so seemingly trivial will be thought by many ill-judged. Perhaps they will think otherwise when they remember that daily throughout the kingdom many thousands of persons travelling on lines they are strangers to, are often greatly inconvenienced—hurried, perturbed, delayed—by the irrational usages at present in force; and that not only their interests but the interests of the companies dictate some such change as that

indicated. The letter appeared in *The Times* for December 2, 1895.

In your issue of Thursday were named several unsatisfactory ways of diminishing the confusion between station name-boards and the surrounding advertisements. This confusion may be effectually removed in a way at once simple and obvious.

Advertisers should be allowed to use all colours save one, and that one, reserved for station name-boards, should be the most conspicuous colour—red. Red is the proper colour, not only as being the most conspicuous, but as being the colour of lamps and flags used as signals for stopping; and since a station is a stopping place the board bearing its name should be red.

Further, that it may have the greatest conspicuousness, this board, instead of bearing red letters on a white ground, should bear white letters on a red ground, the advantage being that the much greater area of red presented would catch the eye of the traveller more readily and from a greater distance.

If railway companies could agree to adopt universally such a mode of exhibiting station names an additional advantage would be gained. As things now are the traveller approaching a station does not know the general aspect of the thing he wants to find; but if he had a foreknowledge of its general aspect as a large mass of red this foreknowledge would enable him to identify the name-board even before he came within reading distance.

Were such a plan adopted name-boards of special shapes, and spaces round name-boards, would be needless.

I am told that on one or two of the metropolitan lines the suggestion has been carried out—in part if not completely.

AMERICAN PUBLISHERS.

Though not all of them impersonal in form, the preceding fragments are impersonal in substance. The following reproduced letter, being wholly personal, I could not fitly place with the rest. Yet that my deceased friend should not have a permanent recognition of indebtedness to him from me and from many other English authors, has seemed unjust. To meet the difficulty I have decided to place the letter here. It appeared in *The Times* for September 21, 1895.

In the article on "Literature in America," which appears in your issue to-day, accounts are given of the chief publishing houses in New York and elsewhere. Allow me to make a small but important addition to the account given of the house of Messrs. D. Appleton and Co. In it occurs the sentence:—

"English men of science owe a debt of gratitude to the firm who were the first to introduce authorized editions of the works of Herbert Spencer, Tyndall, Huxley, and Darwin to the American public, and who also originated the well-known international scientific series."

While recognizing the indebtedness of English men of science to the house of Messrs. Appleton, justice requires me to say that the "debt of gratitude" is in chief measure owed to my late friend Professor E. L. Youmans. The soundness of his judgment having been proved to them by experience, the Messrs. Appleton adopted to a large extent the suggestions made by him respecting English works to be republished. It was at his instigation that they undertook the publication of my works, the works of Tyndall, Huxley, and Darwin, and the works of various other scientific men. He was deeply desirous

of obtaining for English authors a due share of the profits resulting from the sales of their books in America, and his desire met with a proper response from the Messrs. Appleton. How far the remunerative terms given to English authors must be ascribed to his negotiations and how far to the equitable feeling of Messrs. Appleton, it is of course impossible to say; but my own correspondence with him enables me to testify that his unceasing effort was to maintain authors' interests. For a period of 30 years, during which English works had no copyright in America, arrangements initiated about 1860 gave to English authors who published with the Messrs. Appleton profits comparable to, if not identical with, those of American authors. To the Messrs. Appleton great credit must be accorded for having loyally carried out these arrangements in my own case and in the cases of various of my friends, and I believe, in all other cases; but I cannot permit the part taken by Professor Youmans in the matter to be ignored.

To him, more than to any other American, the gratitude of English authors is due.

Let me also correct the statement of your correspondent respecting the International Scientific series. This was not "originated" by the Messrs. Appleton, but by Professor Youmans. Further, he was the originator of the *Popular Science Monthly*, for many years edited by him and now edited by his younger brother.

As it might be inferred from the wording of this letter that the payment of copyright to foreign authors began with the works mentioned therein, it is proper to make the statement that the right of such authors had already been recognised by that house, which had been paying royalties on its republications of foreign works for several years previous to the making of any formal arrangement.

LIST OF OTHER FRAGMENTS.

As there not unfrequently arise doubts and disputes respecting an author's minor productions, I have thought it well to give here a list of further letters and essays from time to time published. I have omitted them from the body of the volume, in some cases because of their comparative unimportance, and in other cases because I did not wish to perpetuate the contained personalities.

1862, Nov. 8 & 22. Two letters in the *Athenæum* entitled "Theological Criticism," being replies to Dr. Martineau.

1882, June. "Prof. Goldwin Smith as a Critic." *Contemporary Review*.

1884, April 5. "Mental Evolution in Animals." *Athenæum*.

1884, Sept. 9. "Mr. Herbert Spencer and the Comtists." *The Times*.

1884, Sept. 15. "Mr. H. Spencer and Comte." Ditto.

1884, July. "Retrogressive Religion." *Nineteenth Century*.

1884, Nov. "Last Words about Agnosticism." Ditto.

1889, Nov. 7 & 15. Letters to *The Times* on the Land Question.

1890, Febr. 7. Letter to the *Daily Telegraph* entitled "Reasoned Savagery so-called."

1894, Aug.—Sept. Letters to the *Daily Chronicle* on the Land Question.

1895, June. "Mr. Balfour's Dialectics." *Fortnightly Review*.

This list is not exhaustive. There are several letters the dates of which have not been ascertained; but they are of little significance.

(1)

THE END.



